



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

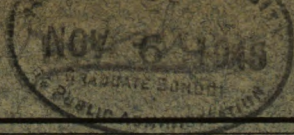
About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

LITTAUER LIBRARY



LI 12SS C



FOURTEENTH BIENNIAL REPORT

OF THE

Duff

Department of Labor and Industries

OF THE

*231.03
ML*

STATE OF MINNESOTA

1913-1914

SYNDICATE PRINTING COMPANY
Minneapolis, Minnesota



LITTAUER LIBRARY, SSP
HARVARD UNIVERSITY

Digitized by Google



FOURTEENTH BIENNIAL REPORT

OF THE

Department of Labor and Industries

OF THE

STATE OF MINNESOTA

1913-1914

SYNDICATE PRINTING COMPANY
Minneapolis, Minnesota





exch
Univ. of Minn.

Table of Contents

Introductory—Report and Recommendations of Commissioner of Labor	7-13
Part I—History of the Labor Department and Labor Laws.....	14-28
Chapter I—History of the Labor Department, 1887-1914.	14-19
Chapter II—Evolution of Factory Legislation, Inspections and Accident Compensation.....	19-22
Chapter III—Woman and Child Legislation.....	23-26
Part II—Workmen's Compensation	29-54
Part III—Industrial Accidents	54-99
Part IV—Inspections and Orders.....	100-121
Part V—Women and Children.....	122-144
Part VI—Mine Inspections	145-169
Part VII—Employment Agencies	170-186
Part VIII—Special Investigations	187-204
Part IX—Labor Organizations	205-250

OFFICERS OF THE DEPARTMENT.

WILLIAM F. HOUK.....Commissioner
JOHN P. GARDINER.....Assistant Commissioner
DON D. LESCOHIER.....Chief Statistician
AGNES L. PETERSON.....
.....Superintendent Bureau of Women and Children

LETTER OF TRANSMITTAL

Office of
Minnesota Department of Labor and Industries,
St. Paul, Minn., December, 1914.

To the Honorable Senators and Representatives of the Legislature
of the State of Minnesota.

Gentlemen: In compliance with the laws of Minnesota creating
the Department of Labor and Industries I have the honor to trans-
mit herewith the fourteenth biennial report of the work of this de-
partment.

Respectfully yours,
WILLIAM F. HOUK,
Commissioner.

INTRODUCTORY.

The last two years, and particularly the last year, have been the most successful years in the history of the Minnesota Department of Labor. This statement is not intended as an invidious comparison of the present administration with previous administrations of the department. The greater degree of efficiency attained has been due (1) to the reorganization of this department by the last session of the legislature, (2) to the civil service examinations which have given us a more efficient group of employes, and (3) to the greater earnestness and interest of the employes in their work as a result of their knowledge that their tenure of office depends upon their efficiency, and not upon changes in the political complexion of the general state administration. The new safety act, enacted by the 1913 legislature as a companion bill with the compensation law, has also played an important part in enabling the department to do more effective work. Its stringent provisions have given the inspectors an opportunity to right many conditions that have for years endangered the lives of the workers. Another important element among the factors that have improved the efficiency of the department is the fact that the department now has a considerable group of experienced employes who have been at the work for a number of years and have developed a high degree of skill in their several positions.

The reorganization of the department which became effective on August 1, 1913, was the third reorganization through which the department has passed since its initial organization as the "Bureau of Labor Statistics" on March 8, 1887, and the department thought that the time had come when an authentic history of its development and of the labor laws ought to be published for the information of the many persons who are interested in such matters and as a historical record. Part I of the present biennial report therefore consists of a "History of the Labor Department and Labor Laws of Minnesota." Chapter I of this study traces the historical development of the department from 1887 to 1914, and Chapters II and III record the enactment and essential features of every labor law passed in Minnesota since the organization of the state government in 1858.

The next part of the report—"Workmen's Compensation"—presents the department's report on the new compensation law during the first nine months it was in effect—October 1, 1913, to June 30, 1914. The report shows that \$157,036.71 in compensation was paid out during these nine months in cases closed before June 30, 1914, and \$129,715.77 in medical care. This does not include the compensation paid out in 735 cases where the payments had not been completed up to June 30, 1914. The digest of the district courts' decisions under the act and the comparison of the compensations paid in Minnesota with those paid under the laws of other states are two other important features of the compensation report.

Section 24a of the compensation act requires the labor commissioner to "observe in detail the operation of the act" and "make report thereof to each session of the legislature, together with such suggestions and recommendations as to changes as he may deem necessary or advisable for the improvement thereof." The labor commissioner purposes to fully comply with these instructions of the last legislature, but has deemed it advisable

to consult the experience of those who have been immediately affected by the act, i. e., the employers and the employees, before presenting his recommendations. He has therefore called together a representative committee of these interests to discuss the act, and will present his recommendations to the legislature in a special bulletin after he has met with this committee.

The commissioner of labor invited the Minnesota State Federation of Labor, the Minnesota Employers' Association, and the mining companies to appoint official representatives to confer with the labor department. These parties were asked to appoint representatives with power to act in an official manner for their associations. George M. Gillette, president of the Minnesota Employers' Association, appointed as the representatives of his organization, Messrs. Eli S. Warner, A. V. Williams, James Shearer, George M. Gillette and Philip Herzog. Mr. E. G. Hall, president of the State Federation of Labor, acting under instructions from their annual convention, appointed Messrs. George W. Lawson, J. P. Walsh, A. L. Rich, Frank Gould and C. M. Hillman. The Oliver Mining Company appointed George Morgan, and the labor commissioner appointed Messrs. Francis J. Webb, A. C. Gillette and James D. Ireland to represent the independent mining companies, and Messrs. W. F. Houk, Frank E. Hoffman and Don D. Lescohier to represent the department of labor. The conference convened for its first meeting on October 27th. All amendments agreed upon by the several interests represented will be included by the labor commissioner in his official recommendations to the legislature, together with such other amendments as he deems necessary.

Part III, "Industrial Accidents," is a summary of the accidents reported to the department during the past five years. If the reader will spare a few moments of his time for this part of the biennial report and Part IV, the report on "Inspections of Work Places," they will reveal what has been accomplished in this state during the past few years in the saving of human life and limb. The accident report reveals that fatal work accidents have declined from 251 in 1910 to 149 in 1914, a decrease of 40 per cent in four years, and that the present low fatality rate has already been maintained for three years. It likewise shows a decline of 33 per cent in non-fatal injuries. The inspection report shows that 3,042 orders were issued by the department's inspectors in 1913 and 17,729 in 1914. The large increase in 1914 is principally due to the more stringent regulations of the new safety law and the increased efficiency of the inspectors. A much greater number of dangers can now be covered by orders than heretofore and the inspectors are more vigorous in their efforts to locate and guard all dangers. Over 12,000 orders were issued in 1914 requiring the guarding of machinery, 84 requiring guards around and on platforms, stairs and passageways, and 509 more to make elevators safe. Better fire protection was ordered in 730 cases, the blocking of switches and removal of obstructions in railroad yards in 330 cases, and better sanitary conditions in 848. It must not be forgotten that these are not merely orders issued. They are orders complied with. Only about 50 orders out of the 17,729 were cancelled, and every one of the others was followed up until it was complied with.

It is very gratifying to see the way that up-to-date employers are taking up safety work. Letters have been received from every part of the country requesting copies of the safety bulletins of the department. The National Council for Industrial Safety requested 1,900 copies of the last of these bulletins for distribution to their members—all of whom are employers and inspection departments.

The report on Women and Children (Part V) presents the work done by the Bureau of Women and Children. This bureau was placed in a more definite relation to the department by the reorganization of 1913 and has done more systematic and efficient work than ever before. It has followed up, by investigation and proper law enforcement, 283 violations of the laws protecting women and children, in addition to a considerable number of complaints in child cases where the allegations were unfounded; has investigated the cases of 116 children for whom permits to appear on the stage were solicited; has inspected 281 mercantile establishments and 201 factories for the enforcement of women and child labor laws and made a special investigation of 234 restaurants, most of which were visited at least twice. In addition to these investigations and inspections it has followed up and endeavored to straighten out 35 cases of dependent and neglected children and 21 cases of juvenile delinquency. The reader will find the detailed report of the investigations among women and children both interesting and instructive and the suggestions of the bureau worthy of careful consideration.

The report of the mine inspectors immediately follows the report of the department's inspectors. It is published in a more condensed and different form than heretofore, but without the omission of any essential part of the report.

Part VII, Employment Agencies, consists of two chapters. One deals with private employment agencies and the other with public employment agencies. The abuses revealed by the department's investigations of private agencies have forced the conclusion upon us that these private agencies can not be properly conducted without more stringent public regulation, and our investigation of the state's public employment offices has revealed that they too need reorganization and better supervision.

The time has come in the development of our state when we must face the problem of regulating employment and providing some efficient organization of the labor market which will bring the unemployed man and the employer seeking help into touch with each other. There are at all times of the year men and women out of employment and employers seeking help, and in the present disorganized state of the labor market both labor and capital lie idle when there is in reality a demand for their services if they only knew where the demand was. Some employers are letting out men at all seasons of the year while others are hiring, and there is needed a system of labor exchanges that will bring the supply and the demand together. Private employment agencies, some conducted for profit and some of a charitable character, have endeavored to fill the need, but their work has been on the whole a failure, as far as the best interests of the workman and of the average employer are concerned. In the first place they have not conducted the work properly, and in the second place the distribution of labor can be efficiently carried on only by an organization that

has a monopoly of the whole field. Private individuals who conduct employment offices do so for personal gain, except in the case of the few charitable agencies which are, in the total, of negligible importance. The private agencies try to carry on their business in the most profitable manner possible, and the opportunity of profit rather than the desire to serve the public needs is the paramount stimulus of their activity. Grafting of various kinds, exorbitant fees, falsehoods, trickery and bullying of workmen, the shipping of men to remote places where no work exists or where the conditions are not as represented by the agent, have all been profitable and have occurred so frequently in every state in the union as to be justly called characteristic of their activities. These wrongs have been just as common in our own state as anywhere and have been discovered by this department in hundreds of cases which have been investigated during the last few years and upon which detailed reports are now on file among our records. Ultimately the state will probably be compelled to assume entire control of the distribution of labor and to do away with the private agencies. For the time being the two pressing necessities are the enactment of a law giving the labor department power to strictly regulate the private agencies and the creation of a position of superintendent of public employment offices who may develop the state offices so that they can take over the major portion of the work of distributing labor.

Even if the private agencies did not stoop to unfair and dishonorable practices it is apparent upon a little reflection that the fundamental need in the organization of the labor market—a central clearing house where every demand for work can be brought into touch with its corresponding demand for help—cannot be provided by the private agencies. There should be one central clearing house with which every local labor agency would be affiliated and to which every local agency would send every unsatisfied demand for labor or for help, and which could shift orders from one local agency to another and thus give every applicant the highest possible number of chances of having his needs supplied. The larger the number of offices in existence (unless they are parts of a unified system) the more disorganized the labor market is and the greater the chances are that when a man applies for a given kind of work he will not get his job because the employer offering that kind of work has filed his application at some other agency. Within each state there should be a **single system** of employment offices to which all offers of employment and all requests for work would be brought, and through which each employer and each workman would have the maximum opportunity of having his needs supplied. These state systems should be, and in time will be, co-ordinated into a national system of employment offices supervised by a central office established by the federal government which would have oversight over and assist in the interstate shipment of labor.

A bill (H. R. 16130) was pending in the house of representatives of the United States at the time that this report was prepared which, if enacted, will create a Bureau of Employment in the United States Department of Labor, with power to (1) study the causes and extent of unemployment, (2) license and regulate private agencies doing an interstate business, (3) create a national system of employment offices to assist in the interstate distribution of labor, and (4) to co-operate as fully as possible with state,

municipal and private agencies. This proposal will soon become a fact, even if the bill now pending should fail of enactment, and it is our belief that the state of Minnesota should begin to lay its plans for some such comprehensive organization of the labor market as we have suggested. It is possible that the private offices might be welded into the public system, but their continued existence as at present conducted, is unthinkable.

We are frank to state that our state offices have in the past been as open to criticism as the private offices, though their fault has been a failure to take full advantage of their opportunity of service and not, as in the case of the private offices, dishonorable practices. They have been inefficient. A careful investigation of the state offices made during the past year by this department has uncovered their various defects and we have perfected a scheme of reorganization that will, we believe, make the offices a credit to the state and a source of widespread benefit. This plan cannot be carried out unless a state superintendent of the offices is provided.

The offices have catered altogether too much to casual labor in the past. A considerable proportion of those who apply for work have been the casual laborers and riff-raff of the cities, many of them unsteady and almost "down and out." They are the sort of men who work only when circumstances force them to and who are looking for short jobs, not for steady work. Mingled with these, there have been a sprinkling of the better types of laborers; particularly at the Duluth office, which sends out more men to "permanent" jobs (i. e., jobs lasting weeks or months, rather than hours or a day or two) than either of the other offices. Neither have the employers who have patronized the offices been, on the whole, the class looking for "permanent" employes but those looking for "handy-men" for odd jobs. Occasionally a manufacturer or contractor or other employer has come looking for regular employes, but on the whole these have patronized the private agencies except when looking for men for a day or two's work or when the private offices could not fill their orders. The major portion of the employers who have patronized the offices have been looking for help for from a few hours to two or three days, and the minority have offered steady work.

The fundamental failure of the offices thus far has therefore been in not securing the patronage of the better classes of either employes or employers and in catering to casual labor. This has not been the policy of the offices, but has resulted from the fact that there has been no one on whom the responsibility has rested to go out and build up business connections with those not accustomed to patronize the offices. In other words, the offices have lacked proper advertising. They have also lacked proper internal business organization and proper record systems. But we believe that we now understand what is necessary to be done in order to make them highly efficient business offices that will so organize the Minnesota labor market as to reduce unemployment, decrease the suffering of the unemployed, and enable employers to get men more quickly and satisfactorily. The carrying out of the detailed plans now prepared depends fundamentally upon the legislature providing a state superintendent and giving this department power to license and adequately regulate the private employment offices.

The eighth part of the report, "Special Investigations," summarizes the results of the department's investigations in following up various complaints. The most important section of this portion of the biennial report is that on "Laborers' Boarding Camps." There are at present no laws regulating these camps and no department of the state has any authority over them. We do not believe that anyone who reads the findings of our inspectors in their investigations of these camps can fail to realize that legislation regulating their construction and maintenance and providing for inspection of them is necessary.

The department's report on labor organizations (Part IX) is believed to be the first complete report ever compiled concerning the labor organizations in Minnesota. The report shows that there are 425 local organizations in Minnesota with 37,083 members and gives the wages, hours, benefits and apprentice rules of each trade.

RECOMMENDATIONS.

The department's work during the past two years has revealed that there are a number of matters concerning which legislation should be enacted at this session of the legislature. The department will recommend certain amendments to the compensation law in a bulletin to be issued in January for that specific purpose. The other recommendations of the department are as follows:

(1) That the office of chief factory inspector be created with a sufficient salary to enable the department to get a high class man for the position. A high grade chief factory inspector can increase the efficiency of the entire inspection force at least 25 per cent by planning and supervising their work and, in addition, could accomplish as much for safety and law enforcement by visiting the employers and interesting them in safety as several additional inspectors.

(2) The creation of the office of superintendent of employment offices. This man should also be a high grade man. He should be a man especially trained for this work and capable of developing the state offices in a scientific and business-like manner.

(3) Private employment agencies should receive their licenses from the state labor department, and those licenses should be revokable by the department upon the conviction of a violation of law by the agent. Our laws should also limit the fees chargeable by these agencies and provide some means of punishing employers who do not live up to their contracts with the agencies and the men sent out to them.

(4) A law passed by the 1913 legislature required any physician attending on or called in to visit a patient whom he believes to be suffering from poisoning from lead, phosphorous, arsenic or mercury or their compounds, or from anthrax, or from compressed air illness, contracted as a result of the nature of the patient's employment to send a report of the case to the commissioner of labor. (1)

The reports rendered under the provisions of this act have been as follows: Lead poisoning, 9 cases, all of which were chronic; copper and arsenic poisoning, 1 case; gasoline poisoning, 1; ammonia poisoning, 1; poisoning from fur dyes, 2 cases; typewriter's cramp, 2 cases; paralysis of fingers due to knitting lace, 1 case. Some of these occupational diseases were not of types mentioned in the law, but are recorded here as interesting illustrations of occupational disease risks.

(1) Occupational Disease Reports: Chapter 21, G. L. 1913.

The lead poisoning cases are the ones of most importance. The occupations of the ones afflicted with this terrible disease were: painters, 6; typesetters, 2; and paint grinder in factory, 1. The man afflicted in the arsenic poisoning case was a pressfeeder, while the men poisoned by fur dyes were both furriers employed in St. Paul factories. The man overcome by ammonia was a morgue keeper.

These cases are of course but a fraction of the occupational disease cases that actually exist in the state. The investigations of this subject carried on in Illinois, New York and other states have revealed that occupational diseases develop rapidly in manufacturing states. The last report of this department (pages 285-7) shows 19 different Minnesota industries in which certain definite occupational diseases have been discovered in other states where the subject has been investigated. We therefore believe that in order to prevent the development of occupational diseases on a large scale we are justified in recommending that the 1915 session of the Minnesota legislature enact into law the bill prepared by the American Association for Labor Legislation for the prevention of occupational diseases. This law has already been passed by Pennsylvania, Ohio, New Jersey, and Missouri, and will unquestionably be passed this year in a number of other states. Copies of the bill will be put into the hands of the committee on labor in the two houses of our legislature and it is the sincere hope of this department that the legislature will see fit to act favorably on the matter.

(5) The hours of labor law for women ought to be extended to cover the whole state.

(6) Street trades should be regulated to prevent the employment of small children in occupations that are now known to be among the most dangerous of any to their moral and physical health.

(7) Boarding camps of all sorts should be covered by legislation regulating ventilation, sanitation and lighting of bunk houses and kitchens, providing for state inspection of these camps, and confiding adequate power in the hands of the state authorities to enforce orders given and establish decent conditions in these camps. The extortion of a dollar a month for "hospital tickets" which do not entitle the employe to medical care for accidents (forbidden by compensation law) or for "chronic or contagious sickness, such as scarlet fever, smallpox, measles, venereal diseases and sickness arising from intoxication" raises the question whether this is not another matter which requires legislation. When one reads over the things for which the men are not entitled to medical care it puzzles him to think sicknesses for which they are entitled to care which would justify a compulsory hospital fee of one dollar a month.

PART I.

CHAPTER I.

EVOLUTION OF THE DEPARTMENT.

The Minnesota Department of Labor and Industries was created under the title of The Bureau of Labor Statistics on March 8, 1887. Its force consisted of a labor commissioner and one clerk. Its contingent fund was \$500 and its total appropriation was \$3,000. Today the department's roll counts thirty-nine names and its total annual appropriation is \$64,680. It is now one of the largest and most important of the labor departments of the country.

Its rapid growth has been due both to the rapid development of the state's industries and to a quickened public conscience with respect to labor conditions. The Bureau of Labor Statistics was created at a time when public attention was just beginning to be directed to the state's duty to regulate conditions of employment, and its especially rapid development during the last ten years has been in response to a more complete realization on the part of the public of the increasing need of effective regulation of industry in the interest of the workers.

The Massachusetts Bureau of Labor Statistics, which was established in 1869, was the first bureau of this kind in the country. Only fifteen other bureaus were established during the next eighteen years, but in 1887 six states created bureaus. It is significant that every one of these twenty-two early bureaus were called Bureaus of Labor Statistics, or of Industrial and Labor Statistics. They were created, in the language of the Minnesota act of 1887, "to collect, assort, systematize, and present in annual reports to the legislature, statistical details relating to all departments of labor in the state, especially in its relation to the commercial, industrial, social, educational and sanitary condition of the laboring classes; to visit and examine factories and all other establishments where people are employed at any kind of labor," "and to see to it that all laws regulating the employment of children, minors and women, and all laws established for the protection of the health and the lives of operatives in workshops and factories are enforced."

The early bureaus were all bureaus for investigating rather than for policing our industries, but the Minnesota law, and probably some of the others also, embodied an idea of law enforcement. The ideas contained in the law which created the Minnesota Bureau of Labor Statistics were: (1) That the labor bureau should be a means of investigating and reporting upon current labor conditions; (2) that it should have the right and duty to recommend changes in the labor laws as necessity or expediency might dictate, and (3) that it should enforce the existing labor laws. These have been the ideas upon which the whole development of the labor department and the labor laws of this commonwealth has rested.

The first labor commissioner of Minnesota was John Lamb, who served from 1887 to January 1, 1891. Mr. Lamb issued the bureau's first report on December 31, 1888. Its natural historical interest is enhanced by its vision of the future possibilities of the bureau if properly conducted, and by its keen analysis of the proper methods of conducting such a bureau.

It has taken more than a quarter of a century for even the leading labor bureaus of the country to attain the efficiency which Mr. Lamb then saw as a present need, and even today only half a dozen have accomplished it. "The great need of these bureaus," he said, "is scientific organization and direction. The business of collecting statistics must be learned just as any other business is learned, and until it is learned the results of investigation will not have the highest scientific value." It has not been until the last five years that the nation has awakened to the fact that it takes men who know how to collect and analyze statistics and to inspect and safeguard factories, rather than men who knew how to gather votes, to do the work of a labor department.

Mr. Lamb took up his work of investigation vigorously, and in the first report of the bureau he was able to present studies upon "The History and Objects of Labor Bureaus," "Wage Earning Women," "Co-operative Industry" and "Strikes." His second report, issued January 1, 1891, laid especial emphasis upon child labor and education. It was Minnesota's first "child labor" report, and contained a discussion of school attendance, child labor, and manual and technical training. In addition, it presented a study of current wages and prices and a report of safety conditions in the mines on the Vermilion range. The child labor and school attendance reports in this volume enable us to measure the progress that has been made in the last twenty-five years, and reveal that the emphasis which the labor department has laid upon child labor and compulsory education legislation in recent years has been but typical of the attitude of the department from its very beginning. The report on school attendance contains an exhaustive argument in favor of the state's right to compel school attendance—a right no one would think of questioning today; while the child labor report shows that 191 or 27 per cent of the 874 boys found in 49 industries, were below 13 years of age; 117, 13 years of age; 199, 14 years, and 197, 15 years. One hundred and sixty-nine had started work before they were 10 years of age, 393 before they were 13, and 615 before they were 14. Sixty-seven could not read, 101 could not write, 181 could not add, 200 could not subtract, 221 could not multiply, 371 could not divide, and only 210 could work fractions. Seven hundred and seven of these boys had fathers living, and in the majority of cases the fathers earned relatively good wages. Small wonder that the labor bureau has always felt that one of its most important duties is to eliminate child labor.

The growth of the bureau in size began with the legislative session next after the one that created it. In 1889, two deputies, who were also empowered to act as factory inspectors, were added to the staff of the bureau, and county attorneys were required by law to prosecute any employer who continued to violate a labor law for thirty days after the bureau had notified him of the violation.

On January 1, 1891, Mr. J. P. McGaughey was appointed labor commissioner, but was succeeded on April 1 by Mr. L. G. Powers. Mr. Powers' report to the legislature of 1893 was the first to give serious attention to factory inspection and safeguarding of human life, and to the reform of the employers' liability laws. It contained the state's first statistical reports on industrial accidents and an eloquent plea for the organization of an adequate system of state factory inspection. As a result of this report, the

title of the bureau was changed in 1893 from Bureau of Labor Statistics to Bureau of Labor, and the staff was made to consist of a commissioner of labor, an assistant commissioner, a factory inspector, two deputies, and two assistant factory inspectors, one of whom was to act as inspector of railroads. The Bureau of Labor had thus come, by 1893, to have two distinct but closely allied functions—the study of existing labor conditions, and the inspection of factory and work places to protect human life and enforce the labor laws.

The legislature of 1893, which thus reorganized the bureau and provided factory inspection, also passed a safety law that was very stringent for those days, and gave the bureau power to enforce it. But even before this law was enacted Mr. Powers began systematic factory inspection by appointing one of his deputies, Mr. Frank J. Casserly, to devote his time solely to factory inspection. He had no power to compel employers to adopt his suggestions, and had to depend upon "moral suasion," but seems to have accomplished results. He visited 445 factories and made recommendations in 312 of them. One hundred and six, or 34 per cent, of the employers complied in full with the inspector's suggestions, and 96 complied in part, making a total of 65 per cent of the employers who voluntarily responded to the bureau's efforts to improve factory conditions. The figures illustrate the fact which every administrator learns by his experiences that the majority of men will do the right when they know what to do, but that there is always a minority who have to be compelled.

Mr. Powers' first report is of interest not only because of its study of the safety problem and its recommendations for safety legislation and the reform of the employers' liability laws, but because of many other recommendations that have now become part of our laws. Among other things, he requested; (1) Legislation to prevent children under sixteen years of age from being employed around dangerous machinery or sent as messengers to places where their morals might be endangered, (2) regulation of the hours of labor of women and children, (3) the creation of state free employment offices, (4) more stringent fire escape laws, (5) reports of industrial accidents, (6) better sanitary conditions in work places, (7) regulation of bakeries in the interest of public health, (8) the creation of a state system of factory inspection.

Mr. Powers attempted to develop the statistical branch of the labor bureau into a general statistical office dealing with other than purely labor matters. Such a development has actually taken place to a greater or less extent in some of the other states, but this type of statistical work was discontinued in Minnesota at the end of Mr. Powers' administration. His very admirable report on American trade unions in the 1891-1892 report belongs properly in a labor bureau report, but his detailed history of flour milling, and his report on "Mortgage Foreclosures and Redemptions and Land Values in Minnesota in the Years 1881 to 1891" displays a different concept of the department than we have today. The same thing is true of his elaborate studies of chattel and real estate mortgages in his 1893-1894 report and his study of the "Purchasing Power of Gold" in his 1895-1896 report.

The 1893-1894 report contained at least two sections, however, of genuine value to the student of Minnesota's labor history. The one was a

256-page report on the "Apprentice System," which gives a history of apprentice legislation and the trade union apprentice rules up to 1893, while the other is the report on factory inspection, which, in addition to accident statistics and prevention suggestions, gives a history of woman and child labor legislation in Minnesota up to 1893. There was nothing bearing on labor matters published in the report of 1895-1896, since only the first half of the report was ever published, while his 1897-1898 report was never published at all. The manuscript was fortunately discovered in 1910, though it has been accidentally destroyed since, and revealed that the bureau had continued its investigations along the line of industrial accidents and employers' liability laws.

In January 1, 1899, Mr. Powers was succeeded by Martin F. McHale, and the introductory paragraphs of his report of 1899-1900 are eloquent of the dissatisfaction that had attended the diversion of the bureau's time and appropriations into non-labor matters.

"The purpose of this volume is to furnish a record of the work of the Minnesota Bureau of Labor for the years 1899 and 1900. It differs materially from a number of other Labor Bureau reports in this: That is devoted exclusively to matters pertaining to the industrial interests of this state, and to a discussion of those subjects which have been met with while endeavoring to carry out those functions for which the labor bureau was originally created.

"Theoretical speculations find no place in this report. Such comments and suggestions as may occur are those that have been brought out by actual facts and conditions in the field of labor and industrial activity.

"There having been nothing published by this department pertaining to the subject of labor since 1896, special prominence has been given in this volume to the subject of inspections—inspections of factories, mills, mines, workshops and other institutions in which labor is employed.

"The most important function of the Bureau of Labor is the regular inspection of factories and workshops and the enforcement of the factory laws."

The changed point of view with respect to the functions of the labor bureau from that held in the administrations of Mr. Lamb and Mr. Powers is apparent in these quotations. The bureau's prime duty was now conceived to be factory inspection, rather than statistical investigation. The statistics it compiled were principally a report of its work in law enforcement and its experiences in that work. Mr. McHale published a historical and descriptive study of Minnesota's mines, but the emphasis was laid upon labor conditions in the mines, and the need of more adequate inspection, rather than upon manufacturing statistics.

On January 1, 1901, Mr. John O'Donnell was appointed commissioner of labor and was in charge of the work for the next four years. In 1903 a special appropriation increased his force by providing two more factory inspectors, and this appropriation was continued until the reorganization of the bureau in 1907 under the title of "Bureau of Labor, Industries and Commerce." Mr. O'Donnell's policies were very similar to those of Mr. McHale. The factory inspection work was steadily developed. "To lessen the chances of accidents to working people in factories and workshops, and to make their places of work as safe as possible, to make work rooms and their surroundings as healthful as modern hygiene and sanitary science knew, and to provide adequate means of escape from factory buildings in case of fire, are the foremost duties of the Bureau of Labor, and require an efficient

inspection service," says Mr. O'Donnell in the opening sentences of his report for 1901-1902. But he did not overlook the need of careful studies of general labor conditions. "Hand in hand with the inspection service," he continues on the same page, "goes the collection of data relating to all departments of labor in the state." His report for 1901, besides its detailed report of factory, mine and railroad inspections, contains a seventy-page study of wages, discussions of the domestic servant problem and the early closing movement, and reports on child labor, labor organizations, accidents, strikes and lockouts, and manufacturing statistics.

Part 2 of the 1903-1904 biennial report is a very interesting volume. Part 1 is devoted to the regular factory inspection and accident statistics. Part 2 contains a comprehensive statistical report on industries and wages, an able report on sanitary and safety conditions in the state institutions, a child labor report, a study of the "Junk and Rag Industry," and a very instructive report on "Women Wage Earners." The volume constitutes a statistical report dealing with labor matters of importance and of interest.

On January 1, 1905, Mr. W. H. Williams became commissioner. He took up his duties under the most advantageous conditions that any commissioner of the bureau had ever enjoyed. The legislature had just provided a special woman inspector to study the woman and child labor problems of the state, and had also appropriated funds to start a state free employment office, which was established in Minneapolis.

During the next four years the bureau devoted itself entirely to inspection and law enforcement work, and very little was done in pushing forward into new fields of activity. They were years when the labor laws were improved in various particulars, and the regular work was given attention, but when the original function of the bureau—that of investigating labor conditions and finding out what advances ought to be made in the state laws, was to some extent neglected.

The bureau was reorganized and enlarged in 1907. As then organized it consisted of a commissioner, assistant commissioner, a statistician, three deputies, ten factory inspectors, a woman inspector, and such other employees as the commissioner might employ out of the contingent fund. Three free employment offices were provided the same year in St. Paul, Minneapolis and Duluth. The municipal office of Duluth was taken over by and consolidated with the state office at that time.

The administrations of W. E. McEwen, 1909-1911, and W. F. Houk, 1911 to date, have brought a renewed emphasis upon investigations, and at the same time have developed factory inspection to an efficiency never before attained. The 1909-1910 report, issued under Mr. McEwen, contained detailed studies of "Industrial Accidents and Employers' Liability in Minnesota," and "Wages, Prices and Family Budgets," while the 1911-12 report, the first report issued under Mr. Houk, contained studies on "Workmen's Compensation," "Industrial Accidents and Accident Prevention," and "Occupational Diseases," in addition to the chapters on factory inspection, child labor, labor organizations, and other subjects regularly discussed in every biennial report. As a result of these recent developments, the reorganization of the bureau which took place in 1913 provided for a Department of Labor, composed of four subordinate bureaus in charge respectively of

statistics, inspection, free employment offices, and women and children. The bureau of women and children was first created by a law in 1909, and under the reorganization of 1913 was welded more closely into the general department. The statistical bureau now has a force of three statisticians and five clerks and stenographers; the factory inspection bureau of three deputies, one elevator inspector, one railroad inspector, and nine factory inspectors; the employment bureau of four men and four women, and the bureau of women and children of a superintendent, three inspectors and a stenographer. Besides these, there is the central office force of the department, which is composed of the commissioner, the assistant commissioner, a stenographer and a clerk.

The powers of the department have grown commensurately with its size, but this point can best be discussed in connection with the brief summary of the labor laws that will be found in the succeeding chapters.

CHAPTER II.

EVOLUTION OF MINNESOTA'S FACTORY LEGISLATION, FACTORY INSPECTION AND ACCIDENT COMPENSATION.

Safety and Sanitation.

The first legislation in Minnesota bearing on the safety of employes was enacted in 1885 when a law was passed limiting the hours of labor of locomotive engineers and firemen to eighteen hours during one day, except "in cases of urgent necessity" or when necessary because of accident or unavoidable delay. In 1887 this law was amended by striking out the words "in cases of urgent necessity" and inserting, "and provided further that all railroad corporations operating lines of road in this state shall be liable for all injuries to its engineers or firemen resulting from their being obliged to labor for a longer period in any one day than that specified in section 1 of this act (eighteen hours), and that nothing in this section shall be construed as allowing any locomotive engineer or fireman to desert his locomotive in case of accident or unwarrantable delay." This same legislature also passed an act requiring railroad companies to so "adjust, fill, block and securely guard the frogs, switches, and guard rails" on their roads as to thoroughly prevent the feet of employes and other persons from being caught therein. The penalty provided was a fine of not less than \$500 nor more than \$2,000, together with full civil liability to persons thus injured.

The first "factory act" was enacted in 1893, contemporaneously with the creation of the state factory inspection system. It provided that certain machinery, such as saws, planers, mangles, belting, shafting and a number of others, together with all dangerous places near to which employes were obliged to pass, should be guarded as far as practicable, and that no grindstone, emery wheel or other machine could be used when cracked or otherwise defective. Employers were required to furnish belt shifters and loose pulleys to throw belts on and off, and exhaust fans to carry away the dust from emery wheels and grindstones. Hatchways, hoistways, elevator wells and wheel holes had to be fenced or otherwise protected, and all elevators provided with automatic stopping devices. No employe was per-

mitted to remove any of these guards except under rules laid down by the employer. Proper and sufficient means of escape in case of fire, by more than one way of egress, were also required by the statute. All doors had to open outward, and when necessary the commissioner could require external fire escapes built according to a plan specified in the law or on some other plan approved by him.

All factories, mills and workshops were required by this law to be kept in a cleanly, sanitary and properly ventilated state, and no sleeping room or water closet was permitted to communicate directly with a hotel, restaurant or bakery. Separate toilets and dressing rooms for the sexes were required.

The commissioner of labor and the factory inspectors were authorized and ordered to enforce the law, except that they could not inspect any elevator which had been inspected and insured by a liability insurance company. They were required to report to the municipal authorities any violation of local ordinances for the protection of workers, and if the local authorities failed to enforce the ordinance within thirty days it became the duty of the commissioner of labor to enforce it. The act also described in detail the legal procedure by which its requirements and its penalties could be enforced.

Another law enacted at the 1893 session required street railways to provide vestibules on their cars from November 1 to April 1 of each year. In 1895 the act was amended by modifying the commissioner's discretionary powers with respect to the approval of fire escape plans, and by requiring the occupant of a building, whether owner or lessee, to comply with the commissioner's orders. The lessee was given the right to secure reimbursement, if entitled to it, by a civil action against the owner.

In 1903, contractors who use elevating machines or hoisting apparatus were required to guard the shaft and floor openings by a barrier at least four feet high.

A state law of 1905 required the county commissioners of any county having at least five mines in operation within its borders to appoint an inspector of mines, who must be at least twenty-five years of age, of good moral character and temperate habits, and must have had at least six years' practical experience as a miner or be a mining engineer with at least two years' practical experience in iron mines, one year of which must have been in this state. The inspector may not, while holding office, be interested as an owner, operator, agent, stockholder or engineer of any mine. The inspector is given power to inspect and order proper safeguards in every mine, and must make an annual report to the labor commissioner and to the county auditor.

In 1907 railroad companies were required to equip freight cars with automatic couplers and grab irons, and in 1909 the size and equipment of caboose cars was regulated in the interest of the safety, comfort and health of the train crews. At the same session, the law relative to automatic couplers and grab irons was strengthened. The statute also required at least 75 per cent of the cars in all trains to be equipped with power brakes and to have standard sized drawbars. Any employe killed or injured by a train or car not equipped in accordance with the law was held by the law

not to have assumed the risk thereby occasioned or to have contributed to his own injury. The enforcement of this law also was committed to the railroad and warehouse commission.

Another statute of 1909 forbade the use of any basement room for a workshop, factory or place of business if condemned by the commissioner of labor as unhealthy.

The safety laws were materially amended and improved in 1911, and then codified into what is probably the best safety law in the United States in 1913. The 1913 law did not attempt to list all of the dangerous machines or processes, as the earlier laws had done, but required that all danger points on all types of machines, and all dangerous places, shall be guarded. The law calls attention specifically to a large number of dangerous conditions, but when its enumeration is finished, always sweeps all unenumerated dangers into the meshes of its "blanket" clauses requiring all dangerous conditions to be removed. It attempts to cover human as well as mechanical dangers, and specifically prohibits any employe from removing guards provided by the employer, and forbids any employe under sixteen years of age from operating any dangerous machinery or handling dangerous chemicals or liquids or operating any elevator or boiler, or any woman from oiling or cleaning moving machinery. Detailed provisions are also made for the guarding of scaffolds, for the preventing of overloaded floors, and for warning employes of danger.

A special law of 1911 required corn shredders to be safeguarded before being offered for sale in the state. The 1913 legislature regulated the candle power of locomotive headlights and required that more adequate clearance should be given between railroad tracks and structures or obstructions near the tracks, so that trainmen would not be killed and injured by striking such obstructions while riding on trains.

Accident and Occupational Disease Reports.

The factory act of 1893 required all employers to report to the commissioner of labor any accident in a factory, mill or workshop or upon any public or private work, that caused death or an injury requiring the attention of a surgeon. In 1909 this law was superseded by a new act which required "every employer engaged in industrial employments" to report within thirty days "all accidents." The statute specified a detailed list of data to be furnished by the employer, which included, together with detailed facts concerning the injured person and the accident, an opinion on the part of the employer relative to whether the accident was due to personal fault on the part of the injured or some other person, or to the hazards of the industry. In 1913 this law was amended to provide (1) that all fatal and serious accidents must be reported within forty-eight hours, (2) that all other accidents which disable an employe for one week must be reported within fourteen days, (3) and by dropping out the provisions requiring the employer to express his opinion upon whose fault caused the accident.

An occupational disease report law was also passed at the 1913 session. It requires physicians to report all cases of poisoning due to arsenic, mer-

cury, lead and phosphorus or their compounds, and all cases of anthrax or compressed air illness that came to them for treatment if the disease were contracted in the patient's employment.

Workmen's Compensation.

The 1891-1892 report of the labor bureau was the first which called the attention of the people of the state to the need of abolishing the system of employers paying injured workmen only when it could be proved that the injury was solely due to the employer's fault, and substituting a system of "workmen's compensation," whereby injured workmen would receive certain definite amounts if injured, and the question of negligence would not be considered at all. The unpublished report of 1897-1898 went into the matter in still greater detail, but of course never reached the people of the state. In 1909 the legislature provided for a special commission to investigate the whole subject, and in the same year the labor bureau again took the matter up. The commission and the labor bureau each published a report on the subject for presentation to the 1911 legislature, but there were so many different types of laws advocated before the legislature that nothing was done except to appoint a senate committee to draft a bill for presentation to the 1913 legislature. In 1913 Minnesota's workmen's compensation law became a reality, and the first report upon the workings of that law is to be found in another portion of this volume.

Hours of Labor Legislation.

The first "hours of labor" laws enacted for adult males were the laws of 1885 and 1887 regulating the hours of railroad trainmen. These have already been mentioned in connection with "Safety and Sanitation." In 1893 a law was passed which purposed to limit the hours of labor in all occupations to ten hours per day, but its intent was nullified by a proviso that allowed all persons except children under 14 years of age to contract for a longer period for extra compensation.

In 1899 the commissioner of labor was directed to make an investigation of the amount of Sunday labor in the state, and a very interesting report on the subject is published in the 1899-1900 report of the bureau.

A law of 1901 limited the hours of all laborers, workmen and mechanics employed upon any work done by or for the state to eight hours a day. This was followed in 1903 by another law relative to the hours of trainmen that limited them to fourteen consecutive hours in one day. In 1907 this limit was increased to sixteen hours in one day, and the duty of enforcing the law was laid upon the railroad and warehouse commission.

The laws regulating the hours of labor of women and children are discussed in Chapter III.

CHAPTER III.

WOMAN AND CHILD LEGISLATION.

Child Labor Legislation.

At the first session of the Minnesota legislature (1858) a law was passed entitled, "An act for the regulation of labor," which fixed the hours of labor of women and children under 18 years of age, in the absence of a contract to the contrary, at ten hours a day. The power to contract to work more than ten hours a day of course made the law of little effect. In 1879 "An act for the protection of children within the state of Minnesota" was passed which forbade the employment of any child under the age of 14 as a beggar, gymnast, contortionist, acrobat, rider, or at any occupation dangerous to morals, or in any "exhibition or vocation injurious to the health or dangerous to the life or limb of such child," and also prohibited cruelty to children. In 1885 the penal code was amended to forbid any person from wilfully causing or permitting the life or health or morals of a minor to be endangered or to employ or cause to be employed any child under 16 years of age in the occupations forbidden by the law of 1879. In 1893 this law was amended to prohibit any child under 16 years of age from labor of any kind outside of the family of such child's residence before seven o'clock in the morning or after seven o'clock in the evening, and "to prohibit any person from compelling any child under 16 years of age to work more than 10 hours in any factory, workshop or mercantile or manufacturing business.

This more or less fragmentary legislation culminated in 1895 in a comprehensive child labor law. The principal provisions of this statute were: (1) that no child under 14 years of age could be employed at any time in or about any factory, workshop, or mine; (2) that no child could be employed for wages before seven a. m. or after six p. m.; (3) that no child under the age below which all children are required by law to attend school could be employed at any occupation during the hours when the public schools in the city or town in which he resided were in session, unless he had attended school during that year for a period of time equal to that for which the public schools were in session; (4) that the labor commissioner and his assistants could forbid the employment of any child unable to secure a certificate of physical fitness for the occupation in which he desired to engage; (5) that no child could be employed who could not read and write simple sentences in English, except during vacation, unless the child was a regular attendant at a day or evening school; (6) that no child under 16 years of age could be employed unless his employer procured from the school authorities a certificate permitting the child to leave school and go to work, but such certificates could be given any child 12 years of age able to read and write the English language if his labor was necessary for the support of his family or his own support.

No child under 16 years could be employed to operate an elevator, and no minor under 18 could operate an elevator running more than 200 feet per minute. Both the employer and the parent could be punished for violation of the law.

At the next session of the legislature the law was amended to forbid the employment of any child less than 14 years of age in any factory, work shop or mine at any time and in any mercantile establishment, or in the telegraph, telephone or messenger service during the time when the public schools were in session. No child under 16 years could be employed at any occupation dangerous to life, limb, health or morals, nor more than 10 hours in one day or 60 hours in one week, nor after 7 p. m., except that on Saturdays and for 10 days before Christmas they could be employed until 10 p. m., provided that they did not work more than 60 hours during the week.

In 1907 the child labor law was completely revised. Various ambiguous phrases in the laws of 1895 and 1897 had made prosecution of offenders against those laws difficult, and public sentiment also demanded more stringent legislation.

The law of 1907 made it illegal to employ any child under 14 years of age in any business or service whatever during the time in which the public schools were in session, or in any factory, mill, workshop or mine at any time, and forbade the employment of any child less than 16 years of age unless such child filed with the employer an employment certificate given him by the school authorities. An important change incorporated in this section of the law provided that the members of the Department of Labor could demand evidence of the age of any child, and failure on the employer's part to produce such evidence within ten days constituted *prima facie* evidence of guilt. This clause was intended to place the burden of proof upon the employer. Instead it was construed by prosecuting attorneys to mean that if the employer discharged a child within ten days after the child was found by an inspector he could not be prosecuted. Consequently prosecutions were almost impossible to secure and the employers could violate the law with impunity.

The school authorities were required to send a monthly report to the labor commissioner giving a list of the certificates issued, which could be used in checking up children found at work. A penalty of five dollars a day was imposed for each day that a child was retained in the employer's service after an inspector had ordered him to discharge the child; officials of the school board and the labor department were empowered to enter any place where persons were employed to enforce the law, and the labor department was given power to demand a certificate of physical fitness in case any child seemed physically unable to perform the labor at which he was employed.

Section 11 of the act was an important addition to the statute. It prohibited the employment of children under 16 years of age on a large list of dangerous machines and in various dangerous employments, or in oiling or cleaning moving machinery, or in any occupation dangerous to life, limb, health or morals.

The compulsory education law was amended in 1911 to eliminate the provision which permitted the granting of an employment certificate because of the poverty of the child's parents. In 1895 the poverty of the parent was looked upon as the most proper reason conceivable for permitting a child to leave school and go to work. In 1911 the poverty of the parents was conceived to be the very reason why the child ought to be kept

in school. If he had to start life in poverty he ought not to also start it in ignorance. The 1911 statute also provided for an annual census by the school board of all children between 8 and 16 years of age in the district. By checking this census with the list of children enrolled in school, it is possible to determine exactly what children are missing and to round up all the truants and child laborers.

The special session of the legislature that convened in June, 1912, added engineering and construction work to the employments in which child labor was prohibited at any time, and specifically forbade the employment of any child in any employment while the public schools are in session, except children who have completed the eighth grade and can read and write simple sentences in the English language. Section 7 of this law prohibits the employment of children under 16 years of age more than eight hours in any one day or more than forty-eight hours in one week, and retains the old limitation that they must not work before 7 a. m., or after 7 p. m. Every employer is required to post in a conspicuous place a list of the children he is employing, and the hours of commencing and stopping work and the time allowed for meals. The provisions permitting evening work on Saturdays and ten days before Christmas were eliminated, and a minimum fine of \$25 and a maximum of \$50 were provided for violations of the act.

The section of the 1911 law dealing with prohibited occupations was amended to provide that no child under 10 years of age could appear in any concert or exhibition, and that children from 10 to 16 years of age must secure a permit from the mayor of the city or president of the village council before appearing. The act further prohibits the employment of any boy under 18 years of age as a messenger before 5 a. m. or after 9 p. m., or of any girl under 21 years of age at any time.

The 1913 legislature amended only the sections relating to children appearing in theaters, and provided that no permit could be given by the mayor to any child, local or transient, under 10 years of age; that the application must in all cases be made at least seventy-two hours previous to the performance; that notice of the application must be sent to the commissioner of labor and secretary of the Minnesota Child Labor committee at least forty-eight hours previous to any performance, who can demand a hearing on the application. If the performance is dangerous to the life, limb or morals of the child, the commissioner may revoke the permit. If a permit is revoked for any reason other than the unsuitableness of the place, the child may not appear at any other place in the state, even if the mayor of that place grants a permit.

Woman Labor legislation.

The first law regulating the employment of women was passed at the first session of the legislature in 1858. It provided that no woman should be employed more than 10 hours a day, unless she contracted to the contrary. This "contract" proviso of course made the law ineffective.

A statute of 1889 required employers to provide and maintain seats for the use of female employes to such an extent as might be necessary for

the preservation of their health. The certificate or testimony of a physician that any employer was not complying with the provisions of the act was *prima facie* evidence of a violation. It was made the duty of the labor commissioner to enforce the act, though any other person could make a complaint for violation. In 1893 the legislature required separate toilets for the two sexes, and separate dressing rooms in those employments where dressing rooms were necessary.

No further legislation referring particularly to women was enacted until 1907, when a law was passed providing for a special woman inspector in the bureau of labor, with power to examine the sanitary conditions in all places where women are employed, and to report to the bureau all violations of law, together with any conditions or practices found which tended to impair the welfare of employed women. The same session of the legislature enacted a general law regulating the conditions of employment of women, which provided (1) that no woman could be employed in a mercantile, manufacturing or mechanical establishment more than fifty-eight hours a week, and that in a manufacturing or mechanical establishment they could not be employed more than ten hours a day, except for the purpose of shortening the hours of labor one day in the week; (2) that every employer must keep posted a notice stating the hours of labor; (3) that one hour shall be allowed for the noon-day meal and twenty minutes for lunch in the evening when working overtime, unless the commissioner of labor permits a shortening of the meal time; (4) that there must be at least 400 cubic feet of air in the room for each employe, unless the commissioner of labor gives a written permit allowing this amount to be reduced to not less than 250 cubic feet; (5) that an adequate ventilation system shall be provided and provision made to carry off excessive heat, steam, gases, vapors, dust or other impurities dangerous to health, and (6) that where dusty work is carried on, the work place must be cleaned with soap and water at least once in six months and lime-washed or painted at least once a year, while dressing rooms and toilets were required to be washed with soap and water once a week.

In 1913 a statute was enacted which applies only to cities of more than 20,000 inhabitants which provides that women shall not work more than ten hours in a day or fifty-eight hours in a week in mercantile establishments, restaurants, or eating houses, nor more than nine hours a day or fifty-four hours a week in mechanical, manufacturing, telephone or telegraph establishments. An eleven-hour day was permitted in mercantile establishments on Saturday, while longer work days are permitted some days when they shorten the hours on one day of the week. But the weekly maximums cannot be exceeded for any reason.

An act establishing a minimum wage commission was also enacted in 1913, which provided that a commission of three persons should be empowered to determine and establish minimum wages for women and minors. The commissioner of labor is a member of this commission, but the commission is in all other respects independent of the department of labor.

CITATIONS TO LAWS.

Chapter 115, G. L. 1887, created department. Total appropriation.....	\$3,000.00
Chapter 244, G. L. 1889, added two deputies. Total appropriation.....	6,500.00
Chapter 6, G. L. 1893, reorganized department and created factory inspection. Total appropriation.....	12,200.00
Chapter 285, Subd. 127-128, G. L. 1903, and Chapter 337, Sec. 14, G. L. 1905, provided two extra factory inspectors and expenses. Total appropriation.....	16,200.00
Chapter 316, G. L. 1905, provided one free employment office. Total appropriation.....	17,950.00
Chapter 356, G. L. 1906, reorganized bureau and increased the force; Chapter 456, G. L. 1907, provided special woman inspector. Total appropriation.....	51,600.00
Chapter 180, G. L. 1907, provided three employment offices. Chapter 497, G. L. 1909, and Chapter 375, Sec. 18, G. L. 1909, created woman's bureau. Total appropriation.....	56,600.00
Chapter 16, Sec. 265, G. L. 1911, increased salaries and added one stenographer. Total appropriation.....	62,000.00
Chapter 518, G. L. 1913; Chapter 400, Sec. 1 (21), G. L. 1913, and Chapter 583, Sec. 3, G. L. 1913, created present department. Total appropriation.....	64,680.00

EVOLUTION OF FACTORY LAWS.

Safety and Sanitation.

Chapter 206, G. L. 1885—Safety and 18 hours of railroad employees.
Chapter 59, G. L. 1885—Safety and 18 hours of railroad employees.
Chapter 16, G. L. 1887—Guard switches, railroad employees.
Chapter 69, G. L. 1903—14 hours a day of railroad employees.
Chapter 202, G. L. 1907—Couplers and grab irons.
Chapter 253, G. L. 1907—16 hours a day for railroad employees.
Chapter 382, G. L. 1909—Caboose cars.
Chapter 488, G. L. 1909—Couplers, grab irons and brakes.
Chapter 93, G. L. 1913—Locomotive headlights.
Chapter 307, G. L. 1913—Clearance law.
Chapter 63, G. L. 1893—Vestibules for street cars.
Chapter 7, G. L. 1893—The safeguarding of factories.
Chapter 123, G. L. 1895—Amending factory act.
Chapter 397, G. L. 1903—Contractors guard holsts.
Chapter 289, G. L. 1909—Use of unsanitary basements.
Chapter 499, G. L. 1909—Health of women employees.
Chapter 354, G. L. 1911—Guarding of corn shredders.
Chapter 288, G. L. 1911—Factory law revised.
Chapter 316, G. L. 1913—Factory law revised.

Accident and Occupational Disease Reports

Chapter 7, Sec. 9, G. L. 1893—Accident reports required.
Chapter 235, G. L. 1909—Accident reports required.
Chapter 416, G. L. 1913—Accident reports required.
Chapter 467, Sec. 24, G. L. 1913—Accident settlements and releases to be reported.
Chapter 21, G. L. 1913—Reports of occupational diseases required.

Workmen's Compensation

Chapter 286, G. L. 1909—Creating commission to investigate.
Chapter 467, G. L. 1913—Workmen's compensation law.

Hours of Labor

Chapter 24, G. L. 1858—Women and child labor.
Chapter 96, G. L. 1893—Child labor.
Chapter 49, G. L. 1895—Ten hours in absence of contract.
Chapter 171, G. L. 1895—Child labor.
Chapter 360, G. L. 1897—Child labor.
Chapter 148, G. L. 1899—Investigation of Sunday labor.
Chapter 310, G. L. 1901—Eight hours on state work.
Chapter 8, Special Session Laws, 1912—Child labor.
Chapter 499, G. L. 1909—Women.
Chapter 184, G. L. 1911—Women.
Chapter 581, G. L. 1913—Women.

Child Labor

- Chapter 24, G. L. 1858—Hours of labor.
Chapter 75, G. L. 1879—Forbidden occupations.
Sections 248 and 250, Penal Code, 1885—Protection from dangerous employments.
Chapter 96, G. L. 1893—Hours of labor.
Chapter 171, G. L. 1895—Regulation of child labor.
Chapter 360, G. L. 1897—Revised child labor law.
Chapter 299, G. L. 1907—Revised child labor law.
Chapter 356, G. L. 1911—Eliminated poverty clause—school census.
Chapter 8, Special Session, Laws 1912—Revised child labor law.
Chapter 516, G. L. 1913—Theaters and amusements.

Woman Labor

- Chapter 24, G. L. 1858—Hours.
Chapter 10, G. L. 1889—Seats for females.
Chapter 7, G. L. 1893—Separate toilets and dressing rooms.
Chapter 456, G. L. 1907—Special inspector.
Chapter 457, G. L. 1909—Women's bureau.
Chapter 499, G. L. 1909—Regulating employment of women.
Chapter 184, G. L. 1911—Revised law of 1909.
Chapter 581, G. L. 1913—Hours.
Chapter 316, G. L. 1913—Safeguarding.
Chapter 547, G. L. 1913—Minimum Wage Commission.

PART II.

THE WORKMEN'S COMPENSATION ACT.

The Minnesota workmen's compensation act, enacted in 1913, went into effect October 1, 1913. The state therefore had nine months' experience under the act when this department's statistical year closed on June 30, 1914, and we do not believe that anyone conversant with what has taken place during those nine months would advocate the re-establishment of the old employers' liability system unless it would be some of the disreputable agencies that have been put out of business by the new law. Many defects in the law have revealed themselves in its practical operation, but not as many as might have been expected. On the whole the act has been a distinct success. Its constitutionality has been established by the supreme court, but a relatively small amount of litigation under it has taken place, and injuries have been in the majority of cases compensated in strict accordance with its provisions.

Section 24 of the act requires the labor commissioner to "observe in detail the operation of the act" and "make report thereof to each session of the legislature, together with such suggestions and recommendations as to changes as he may deem necessary or advisable for the improvement thereof."

The commissioner of labor will issue during the month of January, 1915, a supplementary report on workmen's compensation in the form of a bulletin which will contain his recommendations for the amendment of the act, and the present report will consist of (1) a statistical report, showing the number of cases settled, the amounts paid, etc.; (2) an analysis of the court decisions rendered in cases under the act; (3) a description of the administrative machinery by which the act has been handled and how it has worked; (4) a comparison of the amounts of compensation payable under the Minnesota act with the amounts payable under other American laws.

As was said by the commissioner in the introduction to this biennial report a detailed criticism of the act would be out of place in this report because the commissioner has called together a committee of advisers to discuss the act before submitting recommendations, and may change his recommendations as a result of the conferences of the committee.

STATISTICAL REPORT.

The total number of accidents reported to the department in the year ending June 30, 1914, was 12,233, of which 149 were fatal and 12,084 non-fatal. Twenty-three of the fatal accidents and 1,721 of the non-fatal were reported before the compensation law went into effect on October 1, 1913. Fourteen of the fatal injuries and 1,033 of the non-fatal ones reported subsequent to October 1 were railroad shop, agricultural and casual labor accidents, which were excluded from coming under the compensation act by section 8 of the act. This leaves 112 fatalities and 9,330 injuries that occurred after October 1 which came under the provisions of the act. Medical expenses had to be paid in all of these cases, but compensation had to be paid in only 3,522 non-fatal and the 112 fatal cases. The other 5,808 non-

fatal injuries disabled the workmen less than two weeks and the employer was liable for medical expenses only in these cases.

The statistics which we are about to present relative to the payment of compensation in the 3,634 cases coming within the compensation provisions of the act will show that the claims are being promptly met by most employers and insurers. All payments due under the act were made in 2,468 or 67.6 per cent of the cases before June 30, and the cases "closed." Agreements of settlement had been made and payments started in 735 cases, or 20.2 per cent of the whole number. No settlements had been reported to the labor department up to June 30 in the other 431 cases, but our knowledge of the methods of settlement used by certain companies enables us to say that payments had also been started in many of these cases.

The total amount of compensation paid out in the 2,468 "closed cases" was \$157,036.71. The gross compensation due in these cases was \$160,412.04 but \$4,950.95 was deducted by various employers who discounted payments due at future dates to their present value when making lump sum settlements. Table 1 shows the total amount of compensation paid in the closed cases, and the type of injuries for which it was paid. Twenty-one fatalities were compensated by the payment of \$23,080.77, or at an average of \$1,100 each. Nine of the deceased left no legal dependents and the total compensation legally due in these cases was only \$937.33. This leaves a total compensation paid in the other 12 cases of \$22,143.44, and an average compensation of \$1,845.28. Two of these were cases of partial dependency where the compensations amounted to only \$600 and \$300 respectively. The compensation in the 10 cases where men left families dependent upon them averaged \$2,124.34. The largest compensation paid in a death case where total dependents were left by the deceased was \$3,000 (2 cases) and the lowest \$1,800 (3 cases). It will be observed from table 2 that most of these fatal cases were settled within a few weeks of the accident and all of them in less than 20 weeks.

Any analysis of the compensations paid for non-fatal injuries (table 1) should deal with the amputation injuries and the temporary injuries separately. The table shows that \$57,007.19 was paid in compensation for injuries coming under the schedule for permanent partial disability in section 13c of the act. Loss of fingers alone drew a total compensation of \$23,933.77 and loss of eyes of \$18,055.78. These two were the most important classifications and suggest two types of injuries which business considerations would make it worth the employer's while to prevent. It was not possible for the department to get a complete report on the periods of disability that actually resulted from these "permanent partial" injuries, though the department made strenuous efforts to do so. If we could have accomplished this we could have told exactly how much of the compensation paid was for loss of earnings at the time of the accident, and how much for the permanent injury. Such figures as we were able to collect suggest that the compensation paid for loss of fingers approaches more nearly to a proper compensation for the permanent impairment and disfigurement than does the compensation for the more serious permanent injuries such as the loss of a hand, a leg or an eye.

The report which is made on temporary injuries by table 1 is much more satisfactory than for fatal and permanent injuries, because in these cases the department was able to get the actual period of the disability and was enabled to compute the injured's wage loss and the percentage which his compensation constituted of his wage loss. The table shows that the total wage loss of the 2,279 employes who received temporary injuries and whose cases were closed before June 30 was \$201,658.50, while the total compensation they received was \$69,173.05. Their compensation therefore amounted to approximately 35 per cent of their wage loss. The employers paid the medical expenses and 35 per cent of the employes' wage losses and the employes themselves stood 65 per cent of their wage losses.

The third table summarizes the data contained in table 1 but classifies the cases by industries. It must be remembered that the data contained in columns 11 and 12 on "gross wage loss" and "net wage loss" refer only to the temporary cases listed in column 5.

A small percentage of cases have been settled "irregularly," i. e., without regard to the exact language of the compensation act. In some of these cases the employers have felt that the amount of compensation awarded by the act is too small and have given their men full wages, or something more than the act allowed. In other cases there has been a dispute between the employer and the employe, or the insurer and the employe, with respect to the exact nature of the injury and the amount of permanent disability that has resulted, or as to whether or not the injury actually occurred in the employer's service, and the disputes are compromised by a certain lump sum payment for which both compensation and common law releases are taken. (Table 4.)

MEDICAL.

The total medical costs incurred under the act between October 1, 1913, and June 30, 1914, as reported to the labor department were \$129,715.77. Of this amount \$81,468.14 was reported by 79 firms with 34,582 employes who do not carry insurance and most of whom hire doctors either at an annual salary or on a percentage of the payroll. These firms cared for a total of 1,313 cases where the disabilities were of more than two weeks' duration and 5,423 cases of less than two weeks' duration. Most of them stated that they could not tell what percentage of the total cost was chargeable to the injuries of less than two weeks' duration. These firms also incurred 940 clerk of court fees which amounted to \$1,755.80. The court fees therefore amounted to approximately 2.1 per cent as much as their medical expenses. The lines of business in which these firms were engaged and the number of employes in each group were:

Mining	62 companies with	21,033 employes
Lumbering	5 companies with	5,117 employes
Street railway	3 companies with	3,859 employes
Metal manufacturing	5 companies with	1,789 employes
Meat packing	1 company with	2,299 employes
Agricultural implements and twine	1 company with	336 employes
Miscellaneous manufacturing	2 companies with	149 employes

Totals 79 companies with 34,582 employes

The other \$48,247.63 of medical expenses reported for the nine-month period consisted of \$22,470.26 reported in cases of disability that lasted less than two weeks, and \$25,778.37 in cases where the compensation was paid up

and the case closed. No attempt was made to tabulate the medical costs in the cases where compensation was started during the nine-months period but not completed, since in these cases the medical bills were either not reported by June 30 or were, in many cases, incomplete. It must be noted in this connection, however, that such medical costs are included in the \$81,343.14 reported by companies who pay for medical care by the annual contract plan. Those companies reported their total medical costs of all kinds. But where a doctor is hired for each specific case the medical expense can be closed only when the case is closed, and it was impossible to include this portion of the expense in the current report.

It is very important that the above considerations be kept in mind when attempting to determine what part of the medical costs constitute the total cost incurred in the settlement of accident cases. The report on compensation paid shows that \$157,036.71 was paid out previous to June 30, 1914, in 2,468 closed cases, but does not include the amount paid out in the 735 cases where the compensation was being paid but where payments had not been completed. The medical costs reported above show, on the other hand, a large portion of the medical expense incurred in these partially closed cases, namely, the amount incurred by the employers of 34,582 employees, mostly employed in the state's most dangerous industries. It would not be true, therefore, on the basis of the figures given, to say that the medical costs under the compensation act constitute 45 per cent of the total expense of the employers, but it would be true to say that they would constitute some percentage less than 45 per cent of the total costs. The true percentage would probably be between 33½ and 40 per cent. This percentage is somewhat higher than that reported for Wisconsin by the Wisconsin Industrial Commission but it must be borne in mind that Wisconsin has a one-week waiting period and Minnesota a two-week period, that Wisconsin pays 65 per cent of the wage loss and Minnesota only 50 per cent, and that Wisconsin pays more liberally for serious permanent injuries than Minnesota does. Their medical costs are higher than ours, but their compensations exceed Minnesota's still more, and Minnesota's medical costs therefore constitute a larger percentage of the compensation than Wisconsin's.

DISPUTED CASES UNDER COMPENSATION ACT TRIED AND DETERMINED BY DISTRICT AND SUPREME COURT.

Constitutionality.

The constitutionality of the compensation act was attacked in at least two cases tried before the district courts and after being upheld by them was affirmed by the state supreme court in *Ole Matheson vs. Minneapolis Street Railway Co.*, decided at the April term, 1914. The whole decision may be summed up in one sentence of the court's opinion: "A careful examination of the entire act satisfies us that it contains nothing prohibited by either the state or federal constitution." A more sweeping statement could hardly be conceived. The supreme court upholds the constitutionality of the act in every particular. The syllabus of the court's opinion is herewith presented:

STATE OF MINNESOTA,

SUPREME COURT,
APRIL TERM, A. D. 1914.
No. 44.Ole Matheson.....Appellant }
Minneapolis Street Railway Co.....Respondent }

SYLLABUS

1. Laws enacted by the legislature are presumed to be valid, and will not be declared invalid by the courts unless they clearly transgress some constitutional limitation.

2. The constitutional requirement that all persons shall receive the equal protection of the laws is not infringed by legislation which applies only to those persons falling within a specified class, if it applies alike to all persons within such class, and reasonable grounds exist for making a distinction between those who fall within such class and those who do not.

3. When the legislature has determined that a sufficient distinction exists between two classes of persons to justify applying rules to one class which do not apply to the other, such determination is binding upon the courts unless they can point out that the distinction is purely fanciful and arbitrary, and that no substantial or logical basis exists therefor.

4. Excluding domestic servants, farm laborers, casual employees, and such railroads and railroad employees as are engaged in interstate commerce from the provisions of the workmen's compensation act does not render it unconstitutional as class legislation.

5. The legislature may place employers who become subject to part two of the act in a different class from those who do not, and may also place employees who become subject thereto in a different class from those who do not; and abrogating the defenses of contributory negligence, assumption of risk, negligence of a co-employee, in actions against employers and do not accept such part two, and permitting such defenses in actions against employers who do accept such part two, does not render the act invalid as class legislation.

6. Part two of the act substitutes the rights, remedies and liabilities therein provided for those previously existing, and employers and employees subject thereto are limited to such rights and remedies; but such provisions impair no constitutional rights as they apply only to those who have voluntarily chosen to become subject thereto, and such choice is no less optional because part two is presumed to have been accepted by all employers and employees who have not given notice to the contrary.

7. The act contains no provision prohibited by the state or federal constitution and is valid.

Affirmed.

Piece Work—Contractors.

Stanley Bashko vs. Virginia & Rainy Lake Co., St. Louis county and Minnesota Supreme Court. A series of cases have been tried in the St. Louis courts, in which the employe was employed in cutting ties for a lumber company. The question that arose in these cases was whether or not the injured was a piece worker or a contractor. The case which decided the question and which has controlled the decisions in the other cases was Bashko vs. Virginia & Rainy Lake Company. The district court held Bashko to be a piece worker and awarded compensation. The court's memorandum citing the reasons for the decision was as follows:

Plaintiff went to defendant's logging camp in the ordinary way and asked for a job. He was put to work on defendant's land cutting defendant's timber. He boarded in defendant's camp. He used defendant's tools with some sort of understanding as to payment for use or breakage of same. The foreman told him where to work and what to do. No term of service was agreed on and no definite quantity of timber was to be cut. So far one cannot say whether he was a "monthly man" or a "piece worker." When he wanted some money, instead of asking for so many days' wages, he asked for a count of the ties and poles and posts which he had cut. Instead of the foreman counting the number of days and issuing a time check accordingly, he counted the number of ties and poles and posts, and issued a time check accordingly. In either case, the foreman deducted the board bill and the hospital fee and the "van" account. Plaintiff was not told in detail how he should do his work, but he was probably told as much about it as the monthly men were about their work. He was called a "piece worker." He had the right to begin work and quit work each day when he pleased. But he and the defendant both profited from his industry if he worked longer each day than the monthly men, and both lost by his idleness if he loafed in camp, although it affected him in greater degree. If he loafed in camp too much, the defendant would have and would exercise the right to discharge him. No one can reasonably say he was an independent contractor, or that he was not an employe. He undoubtedly was what is, in the common acceptance of the term in these parts, known as a "piece worker." The effect of his employment as such clearly was merely a method of fixing his compensation. Even if some of the characteristics of his particular employment were dif-

ferent or absent, the result would be the same. No one hereabouts employs men by the day or month to make ties, poles or posts. The penalties following inspection of such products are too expensive to permit men to make them on any other basis than by the piece subject to inspection.

Like consideration compel the same conclusion in employments other than that of getting out timber products. Many manufacturing industries find it more advantageous both to employ and employer to fix the compensation on a "piece work" basis.

The same result should be reached by a court from a consideration of the purpose and intent of the framers of the compensation act. If it is a good law when the wage is fixed on a time basis, it ought to be a good law when the wage is fixed on a piece basis. The industry gets the benefit of the workman's product alike in either case. The industry, therefore, should carry the cost of taking care of those maimed or killed in doing its work.

Decisions have been cited under other compensation acts in other jurisdictions. They are not important. The Minnesota act carries its own definitions, either expressly or impliedly, sufficiently to cover this case and others like it. The act is now on trial. Nothing in the way of judicial construction or legislation should be allowed to hamper the accomplishment of its beneficent purposes or bring its administration into disrepute.

The case was appealed to the state supreme court, which affirmed the decision of the district court. The syllabus of the supreme court decision follows:

STATE OF MINNESOTA.

SUPREME COURT,
OCTOBER TERM, A. D. 1914.
No. 300.

State of Minnesota, ex rel., Virginia & Rainy Lake Co., Relators,

vs.

District Court of St. Louis County, et al.,

Respondents.

SYLLABUS

1. The test for determining whether one person is the employee of another, within the rule making the employer responsible for injuries resulting from the negligence of his employee, is whether such person possessed the power to control the other in respect to the transaction out of which the injury arose.

2. The court cannot determine, as a question of law, that the rule of respondent superior does not apply, unless the evidence shows conclusively that the alleged employer possessed no such power of control.

3. Under the above tests the evidence was ample to sustain the finding of the trial court.

4. The workmen's compensation act is remedial in its nature and must be given a liberal construction to accomplish the purpose intended. The provisions defining when the relation of employer and employee exists bring within the act all cases in which, under the above rule, such relation is found to exist.

Affirmed.

DISTRICT COURT CASES.

Decisions of the district court in twenty-seven cases were filed with this department up to November 1, 1914. In addition to these we have knowledge of at least twenty-three cases that are pending but have not yet been decided. Settlements were made in at least eleven other cases after suit had been started. The number of cases compromised is probably in excess of eleven, since in many cases the department is not notified that a suit had been filed previous to the making of the agreement to settle. The actions in ten of these cases won by the employees were instituted by employees to force their employers to pay compensation. One of these ten was a case where the extent of the injury only was in dispute. One of the most important of these was the case of Walter Korposki vs. Chas. and Fred Koster, St. Louis county. The Kosters were engaged in cutting logs and timber and the injured was engaged at an agreed price per 1,000 feet in doing this work. As a part of his work he had to cut roads over which the defendants could haul their logs. He sustained an injury by which he lost his left leg. Koster refused compensation and the court awarded judgment for medical expenses and \$1,090 on August 3, 1914. A letter received by this department on October 30 and a subsequent investigation by the department shows that he has not yet received any of his compensation and that the employer is insolvent.

In the case of Anton Kubista vs. Leroy A. Smith an action was brought under common law. Anton A. Kubista, son of the plaintiff and a minor, was hurt while running the wood-sawing outfit of Leroy A. Smith on shares. The defendant claimed that Kubista was a contractor and not an employe, but that if he should be held an employe the case is one that would come under the compensation law. The court submitted the question whether the man was an employe to the jury, and they held that he was, but assessed only nominal damages under common law.

Arising Out of the Employment.

Bettie L. Young vs. Employers' Liability Assurance Corporation, Wabasha county. John Young was employed as head miller by the Wabasha Roller Mill Company. He was found dead on the ground on the outside of the building at 8:30 a. m., on October 23, 1913. He fell out of a fifth story window, where he had been seated while examining the fire escape or observing the working of the machinery of the mill. The defendants admitted that the accident occurred in the course of his employment but denied that it arose out of his employment. The court held that inasmuch as his duties took him to any part of the mill at his own discretion and the accident occurred while he was in the course of his duties, it arose out of his employment.

Fred Cook vs. Alger, Smith & Company, St. Louis county. Fred Cook was hired by his employer on December 12, 1913, to work on roads being constructed in and about latter's lumber camps in Lake county, Minnesota. He was boarded and lodged in a camp constructed and operated by the employer in the vicinity of the work said employe was engaged in doing. Among the buildings were a sleeping camp and an eating camp that had been in operation for several weeks prior to February 16, 1914, and during that time a large sheet of ice was formed immediately in front of the door leading from the sleeping camp to the eating camp. While "passing from the sleeping camp to the eating camp to get his breakfast, and before he was suitably dressed for the work on the roads for which he was hired, he stepped on the sheet of ice aforesaid, slipped and fell and injured the deltoid muscle of his right arm and shoulder." "Such injury to said employe was caused by an accident arising out of and in the course of his employment." Compensation awarded.

Minnie V. Almquist vs. Nelson-Spellissey Implement Co., Meeker county. This company in conjunction with its implement business was operating an auto livery and sometimes carried passengers by automobile for hire. Walter V. Almquist worked for this company repairing machinery and automobiles and sometimes drove automobiles which carried passengers for hire. On October 27, 1913, he drove a car for the defendants from Litchfield to a place more than twenty miles distant, and while returning to Litchfield at night was killed by his automobile overturning. The defendants claimed that his death was due to his voluntary intoxication. The findings of the court overthrew this contention but found that he had been reckless. The court held that the accident "arose out of and in the course of his employment," and awarded compensation.

In the Course of the Occupation.

George Chuque vs. Mahoning Ore & Steel Company, St. Louis county. Deceased was injured while riding home from work on a train owned by his

employers. The employes had been forbidden to ride on the train and the accident occurred after he had left his work. Held, that the accident did not occur in the course of his occupation.

Casual Employment.

Frank O'Connor vs. George M. Hanson, Hennepin county. O'Connor was an employe of the Chicago, Milwaukee & St. Paul railroad as a fireman, and on the evening of November 21, 1913, it was agreed between O'Connor and Hanson that the said O'Connor should work for Mr. Hanson for one day, to-wit, the 22d day of November, 1913, unless said employe should be during said day recalled to his employment by the said railroad, in which case it was agreed that the said employe should be notified and should leave his work under the said Hanson, and it was agreed that the said O'Connor should receive for his work as teamster for Mr. Hanson the sum of \$1.00. While engaged as teamster on November 22 he was kicked by a horse and his right leg injured. He claimed compensation. It was held by the court that his employment was but casual and that he could not claim compensation under the act.

Edward Allison vs. County of Ramsey, Ramsey county. Edward Allison was employed for four days in tacking tar paper on a building at the Boys' Detention Home. The work was ordered by the superintendent to be discontinued the day before the accident complained of happened, but the plaintiff remained on the premises and claimed to have been injured by falling from a ladder while working. The court held that the employment was "casual" and defined "casual" to mean "occurring at irregular intervals—occasional." The regular work there is done by the superintendent, the cook, the laundryman and the farmer. This man's employment was in every sense casual.

Measurement of Disability.

Nels Fossum vs. A. L. McCray as trustee in bankruptcy of the Barr Clay Products Company. Dispute in this case was whether or not a dislocation of the knee joint with injuries to the tendons and muscles of the leg constituted a loss of a leg. The court found that on the 4th day of November, 1913, the plaintiff was injured by coming in contact with a tumbling rod, a part of the machinery used by the company in the manufacture of its products; that said injury consisted of a dislocation of the knee joint of the right leg, the stretching and injuring of the tendons and muscles of the right leg; that said plaintiff thereby has suffered a partial, permanent injury and the permanent loss of the use of his right leg; that said plaintiff employed Dr. G. O. Fortney to cure and relieve him from the effects of the injury; that the reasonable value of the services of said physician and surgeon is \$100; that at the time of said injuries the said plaintiff was receiving from said company as wages for his labor the sum of \$13.50 per week; that at the time of said injuries the said plaintiff was not drunk or intoxicated; that under and pursuant to the provisions of the workmen's compensation act the said Barr Clay Products Company paid said plaintiff on account of said injuries the sum of \$85.12; that there is a dispute between this plaintiff and the said defendant as to the amount the plaintiff is entitled to receive as compensation for said injuries, and as

conclusions of law the court finds that the plaintiff is entitled to receive as compensation for said injuries the sum of \$6.75 per week for 175 weeks; that he has been paid on account of said injuries by said Barr Clay Products Company, \$85.12; that the said compensation of said plaintiff for said injuries, in addition to the sum already paid as aforesaid, be paid to said plaintiff in one lump sum of \$984.87 upon the entry of judgment herein, together with \$100, the value of the medical and surgical treatment rendered by said Dr. Fortney, amounting in all to \$1,084.87 that said plaintiff is entitled to recover and his costs and disbursements herein.

Determination of Dependency.

Martin and Christinia Berg vs. Splady, Albee & Smith. Anton Berg, son of the plaintiffs, was employed by the defendants as a carpenter. He fell on April 16th and died of his injuries on April 25. His wages were \$24 per week, and out of that he paid to his parents for their support, \$50 to \$60 a month. His father and mother were both invalids and incapacitated for work, the mother having been confined to her bed for six years previous to his death. A daughter lived at home, but simply paid her own board and other expenses, and did not contribute to the parents' support. Another daughter, Mrs. Ella Prince, lived with the parents and was paid \$4 a week for the housework and for nursing the father and mother, this sum being paid out of the moneys contributed to their support by Anton Berg. Held: That the parents were wholly dependent, that medical expenses of \$200 and compensation at the rate of \$8.40 per week should be awarded.

Partial Dependents.

Computation of Income, Application of Minimum.—Adam G. and Mary Schneckenberger vs. Willard W. Morse, Hennepin county. Anthony Schneckenberger, son of the plaintiffs, was killed in the service of the defendant. At the time of his death he was earning \$52 per month. He lived at home and turned over all his wages to his mother. He received 25 cents per week spending money and his other expenses were of course paid by his mother out of the wages turned over to her. The court held that the cost of his own support must be deducted before it could be determined what his contribution to his parent's support was. It was determined that this amounted to \$12 per month, and that his parents therefore received \$40 a month from him. (The court does not make clear in its opinion why it holds that a son who contributed his whole wage to his parents should be held under the compensation law to have contributed only his wage minus the cost of his own support, while a husband who perhaps spends 20 per cent of his wages for his own personal expenditures in addition to the clothing, food and shelter which was all that this boy received back from his parent, should be held to have contributed his whole wage. It is rather interesting in this connection to note the decision of the Massachusetts supreme judicial court in the Murphy case (Bulletin No. 8, Massachusetts Industrial Accident Board, pp. 14-15) that where a son pays his entire wages to his parents, the parent is entitled to full compensation and the boy's support cannot be deducted.) In the second place the court held that the parents were only partially dependent on this boy's earnings because by the foregoing reasoning, he contributed only 40/52 of his wage to their

support. In the third place the court held that while the parents would have been entitled to \$6 a week if they had been wholly dependent, the minimum did not apply in cases of partial dependency, and they were entitled to only 40/52 of \$6 or \$4.62.

Lump Sum.

Sophia Krogh vs. Sperry Realty Co., Ramsey county. Defendants admitted that plaintiff was entitled to receive \$9.45 for 300 weeks but refused to pay the compensation in a lump sum. The court held as follows: "I am of the opinion that the court is without power to order or to direct commutation of the compensation payable to the petitioner." The conclusion of the Ramsey county court in this case was identical with that of the St. Louis county court in George R. King vs. Antonio Cotone, where the court in refusing a similar petition stated that "the decision is based upon the conclusion that section 25 of our act, section 8220 G. L. 1913, gives the court no authority to act. "If the parties agree, then the court may consent to the commutation. Until the parties act the court may not."

Hernia.

Mathias Koch, vs. Melrose Granite Co. (Stearns county). Maria Fravolovic vs. Oliver Iron Mining Co. (St. Louis county). Two cases where the employe claimed a hernia (rupture) were tried, and in both cases compensation was awarded. In the first case the court found that the claimant sustained an inguinal hernia while transporting rock to the grout pile, and was awarded \$125 medical and hospital expenses incurred for an operation and 25 days' compensation. In the other case the injured was struck in the abdomen by a timber and sustained a rupture for which he was awarded compensation from December 29 to April 22.

Chemical Poisoning.

Albert Halladay vs. Reedcraft Furniture Co., Hennepin county. Albert Halladay, an employe of the Reedcraft Furniture Company, was employed by defendant as a reedworker in defendant's furniture factory. Blister-like projections containing pus appeared on his hands on or about October 9, 1913. They were diagnosed as blastomycosis cutis, a rare fungus disease. Plaintiff had never suffered before from the malady. The chemical processes through which the reeds passed before the plaintiff handled them created calcium hydroxide, which is slaked lime, and this was the only chemical on the reeds at the time they were handled by the injured. During the preceding process the reeds are in contact with calcium hypochlorite, which is a strong disinfectant and fatal to the germ or fungus from which the plaintiff suffered. The court held that: "It does not appear that this fungus or disease existed in the defendant's factory where plaintiff worked and its origin and cause are unknown." The court therefore held that the injury had not been shown to have arisen out of the injured's occupation and that he was therefore not entitled to compensation. The court did not decide whether or not the case would have come under the act if the injury had been proven to have arisen out of the employment.

ADMINISTRATION OF THE COMPENSATION ACT.

The administration of the compensation act is divided by the act between the courts and the labor department. Section 22 of the act provides that "all settlements shall be substantially in accordance with the provisions of sections 13 and 14 of this act, and shall be approved by a judge of the district court." This places the responsibility of passing upon the correctness of the settlements upon the district courts. They must approve every settlement made before it becomes valid. But sections 24 and 24a of the act require that all settlements and releases made under the act shall be filed with the labor commissioner, that the labor commissioner shall advise employees of their rights under the act, that he shall assist in adjusting differences between employer and employee, that he shall observe in detail the operation of the act throughout the state, and that he shall recommend to the legislature such amendments as he deems advisable or necessary.

As a result of these provisions, the part played by the courts in the administration of the act is, on the whole, less important than that played by the department of labor. The close scrutiny by the department of all settlements approved by the courts has resulted in the detection of a number of illegal settlements that had been approved by the courts and in the readjustment of most of these cases. The courts' function of approving settlements applies only to the making of the settlements. Compensation payable in periodical payments for an indefinite period and to terminate when disability terminates always brings forward at some time or another the question: "Has the disability terminated?" The making of the first settlement agreement is a simple matter. It is simply a problem in arithmetic—a matter of applying a percentage stated in the law to a specific wage and providing that the payment shall continue for an indefinite or a definite time. But the determination of the time at which payments shall cease opens the way for innumerable disputes, for crooked work, and for violation of the law. This end of the administration of the act has been almost entirely under the jurisdiction of the labor department, and almost 100 cases a week have been handled by the department where the employee appealed for assistance. A large percentage of these have been cases where complaints of violations of the law in connection with the termination of payments have been made. The injustices suffered by the employees would have been very numerous if the labor department had been unable to step in after the case had passed through the court and beyond its observation and to see to it that the employee got his due. On the other hand the department has been able in a number of cases to discover and terminate efforts on the part of employees to get more than they were entitled to.

Fully 90 per cent of the time of the chief statistician of the department over one-half the time of three deputy labor commissioners, the whole time of a statistician and the time of four clerks and stenographers have been consumed by the work connected with the compensation act. Five reports are received on each accident before the case is finally closed, and in some cases many more reports and considerable correspondence. Investigations that take from three or four hours to as many days have been made in a large number of cases, and a careful study of the laws in the other states

and of the rulings of courts and commissions throughout the country have been kept up throughout the year.

The Department has found most of the judges of the state ready to co-operate with it in every possible way to make the law work swiftly, justly and efficiently. The courts have unquestionably endeavored to enforce the act in the spirit in which it was enacted. The great defect of the law from an administrative point of view is that the courts which approve the settlements have no way of following them up and enforcing complete compliance with the agreement made. It is hoped that some solution for this difficulty will be found.

COMPARISON OF MINNESOTA COMPENSATION LAW WITH THE LAWS OF OTHER AMERICAN STATES.

Twenty-four American states and the federal government have now enacted workmen's compensation laws of one type or another. Bulletin 126 of the United States Department of Labor, entitled, "Workmen's Compensation Laws of the United States and Foreign Countries," contains 22 of these laws and in addition an analysis of them and a digest of all foreign laws on the subject. The exhaustive treatment of the subject in this federal bulletin will make any detailed comparison of the laws by any state department unnecessary for sometime to come. The sole purpose of this section of the present report, therefore, is to compare the amounts of compensation that a workman who receives a given injury and who earned a given wage would be entitled to under the various laws. It endeavors to answer such questions—"Suppose that a man who earned \$15 a week lost his leg, how much would he get under the Minnesota act? How does this compare with what he would receive under the laws of the other states?"

The comparison is presented in a series of tables. Only 22 laws are included in the tables. The Kentucky law has been held unconstitutional and the Maryland law is of a very peculiar type. West Virginia's law really ought to have been barred for the same reason. The employer pays the whole cost of the compensation in all of the states compared except Oregon, where the employes pay one-half of one per cent of his wages, but not less than 25 cents a month, the employer six times as much, and the state the balance; and in West Virginia, where the employe pays 10 per cent of the cost of the compensation.

Four states (table 5) pay compensation in death cases during the life of a dependent widow, unless she remarries, when the balance of the compensation due is computed in a lump sum, but stop the compensation of dependent children when they reach a certain age, usually 16 or 18 years. It is of course impossible to compare the total amount of compensation paid to a widow under the Minnesota act with that paid under these laws, because we have no figures to show what the total amount would be under the life-payment plan. It is perfectly clear, however, that the amounts of compensation payable under these laws is larger than the amount received under the Minnesota law, for at the average rate of wages paid in Minnesota (\$15 per week) a widow would receive \$26 per month for approximately six years under the Minnesota act; \$19.50 per month for life, plus

\$100 funeral expenses, in New York; \$20 per month, and \$75 funeral expense, in Washington and West Virginia, and \$30 per month and \$100 funeral expense in Oregon.

The remaining states all pay the dependents compensation only for a definite number of weeks. The table shows the amounts of compensation payable under the different acts to "total dependents" of deceased employes who earned \$4.50, \$12, \$15, \$21 and \$30 per week. These wage rates are selected for their illustrative value. The \$4.50 rate brings out the effect of the various provisions relative to the "minimum" payment per week, and the \$30 rate the effect of the maximum, while the \$12, \$15 and \$21 rates shows the compensations payable to the families of deceased common laborers, semi-skilled workers and skilled workers. A \$24 rate would also have been very suggestive but was omitted for the sake of conciseness.

A close examination will reveal that the maximum death compensation in Minnesota (\$3,000) is less than the maximums in ten of the other seventeen states and equal to the maximum in the other seven states. None of the states have a lower maximum than Minnesota. Minnesota has no minimum death compensation because if wages are less than \$6 a week the compensation is simply 300 times the weekly wages. The same thing is true of several other states, and a comparison of Minnesota and the other states in this particular is impossible. The comparison of Minnesota with the other seventeen states with respect to the compensation payable the dependents of deceased persons who had earned the specified rates may perhaps be most concisely and clearly made as follows: At \$4.50 per week, Minnesota's compensation is smaller than that in nine states, equal to that in one state, and greater than that in eight states; at \$12 per week, Minnesota's compensation is smaller than in eight states, equal to that in Connecticut and Iowa and slightly greater than that in the other seven states. At \$15 per week Minnesota's compensation is lower than in eight states and approximately equal to that in the other nine states. At \$21 a week, Minnesota's law is inferior to that of sixteen states and approximately equal to that of New Jersey, and at a \$30 a week wage Minnesota's law is inferior to all but one law. The inferiority of the Minnesota law to the various laws which the table shows give higher death compensations is due to three things: (1) the fact that in nine states burial expenses ranging from \$75 to \$150 are paid by the employer in addition to the weekly compensation, (2) the fact that several of the states have higher maximums or else give a higher percentage of the weekly wage and (3) the fact that none of the states except New Jersey and Minnesota have adopted the unique expedient of graduating the percentage of the wage according to the number of dependents, and likewise of providing that when one type of dependents such as a widow, is compensated, any other type of dependents, such as a father or mother, is barred from compensation. The result is that the compensations actually paid come much nearer to the minimums than to the maximums payable at the \$12, \$15, \$21 and \$30 wage rates.

The next table (table 6) shows the compensation payable for total permanent disability at various rates of wages. The same distinction must be drawn in these cases as in the death cases between those states whose laws provide for compensation for only a period of years and those

which provide for compensation throughout the injured's life. The table shows that eight out of the twenty-one states have already established life compensations, and one again notes the rather striking fact that the annual compensations paid in these states throughout life are but slightly lower than the annual compensations paid in Minnesota and most of the other twelve states for a period of eight or ten years. But anyone familiar with industrial accident statistics knows that a considerable percentage of those who suffer total permanent disability do not live more than the period of years for which compensation is paid in the first thirteen states listed in the table, and that there is therefore no reason for paying a much lower annual compensation when payments are extended over the balance of the injured's life.

An examination of the group of states at the top of the table shows that Minnesota's compensations are as inferior for this class of injuries as they are for death. Only one state has lower compensations at the higher wages; while nine out of the twelve states have a higher compensation at the \$4.50 wage; nine at the \$12, nine at the \$15, and six at the \$21 and \$30. The average is \$410 higher at the \$4.50 wage than the Minnesota compensation; \$533 higher at the \$12 wage; \$510 at the \$15 wage; \$342 higher at the \$21 wage and \$678 higher at the \$30 wage.

The next table (table 7), or rather, series of tables, compares the compensation payable under various acts having a fixed schedule of compensations for various specified injuries. In the discussion of this table we will attempt to bring out the differences only at the \$15 and \$30 rates. The first wage rate brings out the workings of the law for the average wage earner, and the higher rate, its workings in the case of the skilled man. The Minnesota law gives as much for the hand of a \$15 man as five of the twelve states with which it is compared and less than seven; and for the hand of a \$30 man, more than one state, as much as four states, and less than the other seven. For the loss of an arm it gives more at the \$15 rate than does West Virginia, as much as four states, and less than seven states; and at the \$30 rate gives more than West Virginia, approximately the same as Wisconsin and four other states, and less than six states. The facts in the case of the loss of an eye, a foot or a leg are almost identical and need not be restated here. The Minnesota act makes a slightly better showing, however, in the case of the lesser permanent injuries such as the loss of a finger or a toe. In the case of the thumb, which we have taken as illustrative of the finger injuries, the Minnesota law is superior, at the \$15 wage rate, to three of the eleven laws with which it is compared; equal to three and inferior to five; and for the loss of a great toe is superior to four, equal to two and inferior to five. The reader will find it well worth his time to carry this analysis further by comparing the compensations paid at each of the specified wage rates, and by comparing the Minnesota compensations with the average for all of the other states listed in the tables.

The two succeeding tables (tables 8 and 9) show the compensations payable to injured persons who had been earning the various specified wage rates, when those persons have suffered temporary injuries and been disabled four weeks and three months. Table 8 is especially valuable in showing the effect of the waiting period upon compensation during the first month of disablement. A detailed analysis of these tables seems unnecessary.

TABLE No. 1—SUMMARY OF COMPENSATION CASES (CLOSED) ACCORDING TO NATURE OF INJURY COMPENSATED

1 Nature of Injury	2 Number of Cases	3 Total Weekly Wage Loss	4 Total Weekly Compensation	5 Gross Compensation Due	6 Compensation Received	7 Discount	8 Gross Wage Loss	9 Net Wage Loss
Fatal.....	21	\$323.44	\$132.46	\$889.80	\$23,080.77	\$1,846.36		
Loss of fingers.....	119	1,739.71	879.54	23,018.12	23,933.73	421.69		
Loss of toes.....	15	224.44	111.92	2,606.35	2,588.39	17.96		
Loss of hands.....	4	63.20	30.60	4,590.00	4,310.00	280.00		
Loss of arms.....	4	50.00	28.00	5,100.00	4,740.20	359.80		
Loss of eyes.....	23	384.67	182.98	18,963.75	18,053.78	917.97		
Loss of feet.....	2	26.20	13.10	1,472.50	1,424.00	48.50		
Loss of legs.....	1	12.00	6.00	2,400.00	1,955.09	444.91		
Cuts and lacerations.....	579	8,425.32	4,245.53	11,967.78	12,053.26	17.36	\$40,955.57	\$28,901.31
Bruises and crushes.....	778	11,603.85	5,800.90	21,159.76	21,427.85	4.00	65,339.06	42,401.92
Eye injuries.....	54	872.38	421.73	1,289.85	1,348.83		4,298.50	2,949.67
Breaks and fractures.....	392	5,860.33	2,938.44	28,118.25	27,874.61	590.20	49,938.82	30,874.05
Sprains and dislocations.....	302	4,578.26	2,236.80	7,882.57	8,062.79	2.20	24,908.28	16,945.49
Burns and scalds.....	78	1,218.76	593.61	2,070.25	2,070.25		6,557.83	4,488.33
Internal injuries.....	44	642.46	326.50	2,635.94	2,647.44		5,538.29	3,265.85
Miscellaneous.....	52	705.26	364.46	1,347.12	1,463.72		4,122.05	2,658.83
Totals.....	2,468	\$36,730.28	\$18,312.57	\$160,412.04	\$157,036.71	\$4,950.95	\$201,658.50	\$132,485.45

TABLE No. 2—FATAL COMPENSATION CASES CLOSED BEFORE JUNE 30, 1914.

Accident Number	Dependents	Weekly Wage	Compensation Rate	Gross Compensation Due	Compensation Received	Discount	Period Elapsing Before Settlement	Sex	Age	Marital
	Total Dependents									
214	Wife, age 35	\$13.50	\$6.00	\$1,800.00	\$1,746.00	\$54.00	6 weeks	M	42	M
2167	Wife and child	26.60	9.32	2,796.00	2,796.00		2 weeks	M	37	M
872	Wife, age 26; stepdaughter, age 4	28.80	10.00	3,000.00	2,716.34	283.66	3 weeks	M	27	M
7394	Wife, age 39; children 5 ages, 11, 9, 6, 4, 1; 1 daughter age 25, partially	18.00	10.00	3,000.00	2,716.80	283.26	6 weeks	M	52	M
1515	Wife, age 20; child, age 1	13.50	6.00	1,800.00	1,661.23	138.77	18 weeks	M	24	M
1517	Wife, age 32; 2 children, age 6 and 8	13.50	6.75	2,025.00	1,873.52	151.48	20 weeks	M	31	M
4744	Father, age 50; mother, 43	13.80	6.00	1,800.00	1,651.16	148.84	11 weeks	M	22	S
1519	Wife	15.24	6.10	1,828.80	1,828.80		18 weeks	M	28	M
6887	Wife, age 28; 1 child, age 1	15.00	6.00	1,800.00	1,510.00	290.00	7 weeks	M	31	M
3085	Wife; 4 children, ages 9, 4, 2 and 6 months	16.50	9.90	2,970.00	2,743.50	226.41	19 weeks	M	36	M
	Partial Dependents									
913	Mother and father	1.00	1.00	300.00	300.00		20 weeks	M	15	S
4897	Mother and father	11.50	2.00	600.00	600.00		12 weeks	M	21	S
	No Dependents									
8843	Medical and funeral expenses only	8.00		100.00	100.00		5 weeks	M	25	S
6230	Medical and funeral expenses only	16.50		100.00	100.00		2 weeks	M	54	D
5000	Medical and funeral expenses only	18.00		100.00	100.00		8 weeks	M	27	S
3111	Medical and funeral expenses only	13.50		100.00	100.00			M	25	S
3872	Medical and funeral expenses only	6.00		100.00	74.50		14 weeks	M	20	S
4363	Medical and funeral expenses only	10.00		100.00	100.00		4 weeks	M	30	S
8695	Medical and funeral expenses only	15.00		100.00	68.50			M	30	S
7000	Medical and funeral expenses only	13.50		100.00	100.00			M	50	W
795	Medical and funeral expenses only	30.00		100.00	194.33			M		

TABLE No. 3—SUMMARY OF COMPENSATION CASES (CLOSED) BY INDUSTRIES

1	2	3	4	5	6	7	8	9	10	11	12
Industry	Number of Fatal	Number of Permanent	Number of Permanent	Number of Total Temporary	Total Wage Loss	Total Compensation Due	Gross Compensation Due	Compensation Received	Discount	Gross Wage Loss	Net Wage Loss
Amusements.....				6	\$107.00	\$54.00	\$494.93	\$174.93	\$20.00	\$486.13	\$333.70
Bakeries.....		1		12	234.00	105.75	722.28	821.78	3.00	2,639.76	913.78
Breweries.....		4		26	536.02	257.95	3,159.50	3,022.30	137.20	2,639.76	1,780.76
Chemical.....		2		16	273.80	128.40	474.26	474.26		1,531.44	1,057.18
Cloth.....		1		11	134.06	81.00	268.92	268.92		530.35	331.44
Coal.....	1			21	305.90	154.37	2,544.68	2,490.68	54.00	2,110.57	1,355.89
Commission.....				6	69.20	36.08	72.75	72.75		267.98	195.23
Contracting.....	3			266	4,903.42	2,243.18	21,470.81	21,144.48	326.33	29,474.80	18,880.15
Fibre.....		15		11	155.96	76.73	177.66	177.66		601.08	433.42
Flour mills and grain elev.		6		58	995.09	494.38	3,265.88	3,190.61	86.77	4,273.43	2,935.53
Food products mfg.	3			11	147.91	76.83	538.48	537.48	1.00	7,719.53	486.05
Hotels.....		5		28	397.40	226.15	1,175.84	1,174.81	1.28	1,615.65	1,020.53
Laundry.....		4		4	61.00	32.00	171.00	171.00		462.00	291.00
Leather and fur		3		10	144.50	85.50	849.79	849.79		819.33	465.29
Livery.....				9	110.13	57.00	261.73	261.73		738.80	474.07
Lumbering.....	4			362	5,026.32	2,626.83	24,498.23	24,100.32	525.91	31,244.32	19,647.03
Meat packing.....		2		39	571.56	290.78	4,291.64	4,003.44	283.20	3,218.65	2,107.01
Mercantile, retail.....	1			137	2,048.82	1,053.68	7,057.68	7,159.42	5.21	13,615.11	8,432.01
Mercantile, wholesale		1		28	440.66	212.91	3,314.58	2,869.67	444.91	2,143.85	1,446.77
Metal.....	11			172	2,704.59	1,352.70	8,603.91	8,484.28	144.23	14,480.67	9,531.01
Mining.....	6	4		646	10,885.68	5,436.35	47,820.58	45,487.12	2,333.46	51,202.35	37,580.48
Municipality.....				12	172.56	87.28	612.91	512.97		1,427.60	831.63
Paper bags, etc., mfg.	1			13	163.00	96.00	1,573.75	1,573.75		945.83	572.03
Paper and pulp.....	3			28	402.10	202.30	1,827.48	1,827.48		2,018.24	1,397.51
Plumbing and heating.		3		17	354.30	143.45	599.61	599.61		2,144.48	1,551.87
Printing.....		4		22	336.05	177.88	2,874.28	2,627.81	246.60	1,381.91	901.50
Public utility.....		9		89	1,510.02	753.38	5,365.98	6,228.66	14.22	8,037.89	4,511.70
Stone products.....		6		53	867.46	427.23	4,316.57	4,564.02	15.05	4,875.92	3,214.55
Transfer and storage.		2		40	578.87	292.53	1,478.10	1,478.10		3,511.51	2,298.22
Transportation.....		24		104	149.40	73.70	287.86	262.79	5.07	7,537.57	5,817.73
Woodworking.....		1		8	1,737.98	894.31	9,484.16	9,278.98	209.51	7,537.57	5,817.73
Miscellaneous.....				10	204.61	77.94	841.11	837.11	4.00	2,183.11	1,532.00
Totals.....	21	5	167	2,275	\$36,730.28	\$18,312.57	\$160,412.04	\$157,036.71	\$4,950.95	\$201,655.50	\$132,486.45

*Data in columns 11 and 12 refers only to cases in column 5.

TABLE No. 4.—IRREGULAR CASES

Accident No.	Extent of Injury	Period of Disability	Compensation Period	Weekly Wage	Compensation Rate	Gross Compensation Due	Compensation Received	Gross Wage Loss	Net Wage Loss	Excess over Wage Loss	Excess over Compensation Due
7403	Arm and leg bruised	2½ weeks	¾ weeks	\$20.00	\$10.00	\$5.00	\$100.00	\$50.00		\$50.00	\$95.00
3076	Broken ribs	5½ weeks	3½ weeks	15.00	7.50	25.00	32.50	80.00	47.50		7.50
2704	Rupture	4 weeks	2 weeks	13.50	6.75	13.50	25.00	54.00	29.00		11.50
2422	Liver ruptured and internal loss of eye	(1)	(1)	13.00	6.50	200.00	200.00				
5335	Loss of eye	6 weeks	100 weeks	18.00	9.00	900.00	910.00				10.00
2851	Loss of 1st finger infected	(1)	(1)			(2)	175.00				
6105	Contusion wrist, leg and back	10½ weeks	8½ weeks	12.00	6.00	53.15	150.00	130.29		29.71	96.85
6937	Back sprained	3½ weeks	1½ weeks	11.40	6.00	10.00	19.00	41.80	22.80		9.00
513	Neck cut and bruised	3½ weeks	1½ weeks	14.00	7.00	9.33	35.80	46.66	10.86		26.47
2772	Fractured arm	3½ weeks	1½ weeks	20.00	10.00	14.29	64.51	68.57	4.05		50.22
2363	Fractured heel	11 weeks	9 weeks	20.00	10.00	90.00	228.49	220.00		8.49	138.49
2771	Eye and side of head bruised	7 weeks	5 weeks	13.09	6.54	32.70	91.68	91.68			59.18
1368	Strain in pit of stomach	2½ weeks	¾ weeks	13.03	6.52	3.26	32.58	32.58			29.32
3585	Fractured leg	12 weeks	10 weeks	16.25	8.12	81.25	198.61	198.61			117.39
3808	Leg cut	5 weeks	3 weeks	15.00	7.50	22.50	73.74	73.74			51.24
4189	Leg sprained	4½ weeks	3½ weeks	25.00	10.00	22.86	112.89	112.89			90.03
7205	Abrasion on finger infected	4½ weeks	3½ weeks	12.00	6.00	38.00	63.13	100.00	36.87		25.13
4419	Dislocated wrist	2½ weeks	¾ weeks	22.50	10.00	6.67	50.05	60.00	9.95		43.39
5066	Arm fractured	4½ weeks	3½ weeks	17.50	8.75	23.33	67.74	81.67	13.93	50	44.41
7574	Inflammation of tendons	5½ weeks	4½ weeks	8.70	5.00	31.25	98.00	97.50			66.75
1094	Bruised thigh	2½ weeks	¾ weeks	13.50	6.00	5.00	24.75	24.75			19.75
1095	Cont'n of arm, thigh & wrist	2½ weeks	¾ weeks	18.00	9.00	2.25	35.76	35.76			33.51
3536	Wrist strained	3 weeks	1 weeks	16.80	8.40	50.40	100.00	54.00	36.76		8.24
5443	Ankle and knee hurt	8 weeks	6 weeks	14.00	7.00	350.00	612.50	134.40	34.40		49.60
5757	Loss of 2d and 3d fingers		50 weeks								262.50
	Total										

(3)—Ten dollars to cover railroad fare to Duluth.

(1)—No report on disability was obtainable.

(2)—Accident was disputed and settled by compromise to avoid litigation.

TABLE No. 5.—PROVISIONS OF STATE COMPENSATION LAWS IN DEATH CASES TO TOTAL DEPENDENTS

State	Percentage of Wage	Maximum per week	Minimum per week	Total Maximum Payable (exclusive of funeral benefits)	Total Minimum Payable (exclusive of funeral benefits)	Specified Period of Compensation	Compensation Payable for Death or Persons Earning Rates of Wages, including Funeral Benefits				
							\$4.50 per week	\$12.00 per week	\$15.00 per week	\$21.00 per week	\$30.00 per week
Minnesota.....	25-60%	\$10.00	(1) \$6.00	\$3,000.00	None	300 weeks	\$1,350.00	\$1800-2160	\$1800-2700	\$1800-3000	\$2250-3000
Arizona.....	50%	None	None	4,000.00	None	400 weeks	900.00	2,400.00	3,000.00	4,000.00	4,000.00
California.....	65%	20.83	4.17	5,000.00	\$1,000.00	Until 3 yrs. earnings are paid.	1,000.00	1,900.00	2,250.00	3,150.00	4,500.00
Connecticut (2).....	50%	10.00	5.00	(2) 3,120.00	(2) 1,560.00	312 weeks	(2) 1,660.00	1,972.00	2,440.00	3,220.00	3,220.00
Illinois.....	50%	None	None	3,500.00	1,500.00	416 weeks	1,500.00	2,596.00	3,120.00	3,500.00	3,500.00
Iowa (2).....	50%	10.00	(1) 5.00	(2) 3,000.00	None	300 weeks	(2) 1,450.00	1,900.00	2,350.00	3,100.00	3,100.00
Kansas.....	100%	None	None	3,600.00	1,200.00	3 years	1,200.00	1,872.00	2,340.00	3,276.00	3,800.00
Massachusetts.....	66 2/3%	10.00	4.00	4,000.00	2,000.00	500 weeks	2,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Michigan.....	50%	10.00	4.00	3,000.00	1,200.00	300 weeks	1,200.00	1,800.00	2,250.00	3,033.00	3,000.00
Nebraska (2).....	50%	10.00	5.00	(2) 3,500.00	None	350 weeks	(2) 1,675.00	2,200.00	2,725.00	3,600.00	3,600.00
Nevada (2).....	50%	13.85	4.61	(2) 5,000.00	2,000.00	433 1/3 weeks	(2) 1,125.00	2,725.00	3,375.00	4,675.00	5,125.00
New Hampshire.....	100%	None	None	3,000.00	None	150 weeks	675.00	1,800.00	2,250.00	3,000.00	3,000.00
New Jersey.....	35-60%	10.00	(1) 5.00	(2) 3,750.00	(3) 1,500.00	300 weeks	1,500-2160	1500-2160	1575-2700	2205-3000	3,000.00
Ohio (2) (3).....	50%	10.00	4.00	3,000.00	1,200.00	312 weeks	(2) 1,650.00	2,438.00	3,250.00	3,900.00	3,900.00
Rhode Island.....	60%	15.00	5.00	5,400.00	1,800.00	360 weeks	1,800.00	2,502.00	3,240.00	4,538.00	5,400.00
Texas.....	65%	9.37	4.69	3,000.00	1,500.00	208 weeks	1,500.00	2,400.00	3,000.00	3,000.00	3,000.00
Wisconsin.....	65%	9.37	4.69	3,000.00	1,500.00	208 weeks	1,500.00	2,400.00	3,000.00	3,000.00	3,000.00

(1)—If wages before injury were less than minimum, then full wages shall be paid as compensation.

(2)—Burial expenses are paid in all cases of fatal injury as follows: In Washington and West Virginia, \$75.00; in Connecticut, Iowa, Nebraska, New York and Oregon, \$100; in Nevada, \$125.00; and in Ohio, \$150.00. These burial sums are included as compensation in the compensation columns of the table.

(3)—Fixed by statute.

(4)—Louisiana law received after this table had been printed. The Louisiana law gives from 25% to 50% of the wage, for 300 weeks, with a total maximum of \$3,000 and minimum of \$900. The compensation under the Louisiana act for the different wage groups listed in this table would be \$900; \$900-\$1,800; \$1,125-\$2,250; \$1,575-\$3,000; \$2,250-\$3,000.

TABLE No. 5 (Continued)—PROVISIONS OF STATES PAYING COMPENSATION DURING LIFE OF DEPENDENT WIDOW

State	Percent- age of wage	Maxi- mum per week	Mini- mum per week	Total Maxi- mum payable (exclu- sive of funeral benefits)	Total Mini- mum payable (exclu- sive of funeral benefits)	Compensation	
New York (2).....	15-66 2/3 %	\$15.38	None	Life	None	1.	30 % of wages to widow for life, with 2 years benefits in lump sum on remarriage. 10 % of wages in addition for each child until 18 years of age, but total compensation cannot exceed 66 2/3 % of deceased's wages.
Oregon (2).....		11.54	6.92	Life	None	2.	For orphans 15 % of deceased's wages.
						3.	For dependent sister, brother, grandchild or grand parent, 15 % with same maximum. Can draw compensation if the entire 66 2/3 % is not used for widow and children.
						4.	\$100 funeral expenses paid in all cases.
						1.	\$30 per month to widow for life; \$300 in lump sum on remarriage; \$300 of wages additional for each child until 16 years of age, with maximum payable \$50.00 a month.
Washington (2).....		8.07	None	Life	None	2.	Each orphan child \$15 a month, with \$50 maximum.
						3.	Any other dependent shall receive monthly payments equal to 50 % of amount actually received per month during past year.
						4.	Parents of deceased minors receive \$25 per month until he would have been 21 years of age, then receive same amounts as dependents "other than wife and children." If surviving spouse die, children shall be compensated as orphans if under 16 years of age; burial expenses, \$100 in all cases.
West Virginia.....						1.	\$20 per month to widow for life; \$240 in lump sum on remarriage; \$5 per month additional for each child until 16 years of age. If surviving spouse dies leaving children under 16, their compensation must continue to be paid, but at the rate of \$10.00 per month, but not to exceed \$35.00 a month in the total.
						2.	\$10 per month for each orphan child. Maximum \$35 per month.
						3.	50 % of average monthly support received by "other dependents," but total payments not to exceed \$20 a month, except that when parents of an unmarried minor are the dependents, they shall receive \$20 a month until he would have been 21 years of age, and then receive compensation as in case of "other dependents."
						4.	Burial expenses of \$75 in all cases.
						1.	\$20 per month for life to widow; nothing on remarriage; \$5.00 per month additional for each child below the age at which he may be lawfully employed in an industry. Maximum \$35 per month.
						2.	50 % of wages to dependent father and mother dependent on deceased dependent minor until he would be 21 years of age, with maximum of \$6.00 per week.
						3.	Adult dependents other than father or mother, 50 % of average monthly support during preceding year for 6 years from date of injury, and not to exceed \$20.00 per month.
						4.	Burial expenses in all cases, \$75.00.

(2)—Burial expenses are paid in all cases of fatal injury as follows: In Washington and West Virginia, \$75.00; in Connecticut, Iowa, Nebraska, New York and Oregon, \$100; in Nevada, \$125.00, and in Ohio, \$150.00. These burial sums are included as compensation in the compensation columns of the table.

TABLE No. 6—COMPENSATION FOR TOTAL PERMANENT DISABILITY UNDER VARIOUS LAWS

State (6)	Maxi- mum pay- ment allowed	Per cent of wages paid	Period over which compen- sation extends	Maxi- mum weekly compen- sation	Min't weekly compen- sation	Maximum Compensation Payable at Various Wage Rates				
						\$4.50	\$12.00	\$15.00	\$21.00	\$30.00
Minnesota.....	\$4,000.00	50 %	400 wks.	\$10.00	(1) \$6.00	\$1,800.00	\$2,400.00	\$3,000.00	\$4,000.00	\$4,000.00
Arizona.....	4,000.00	50 %	(2) Life	None	None	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Connecticut.....	5,200.00	50 %	520 wks.	10.00	5.00	2,600.00	3,120.00	3,900.00	5,200.00	5,200.00
Iowa.....	4,000.00	50 %	400 wks.	10.00	(1)	1,800.00	2,400.00	3,000.00	4,000.00	4,000.00
Kansas.....	6,240.00	50 %	416 wks.	15.00	6.00	2,400.00	2,400.00	3,120.00	4,368.00	6,240.00
Massachusetts.....	4,000.00	66 2/3 %	600 wks.	10.00	4.00	2,400.00	4,000.00	4,000.00	4,000.00	4,000.00
Michigan.....	4,000.00	50 %	500 wks.	10.00	4.00	2,000.00	3,000.00	3,750.00	4,000.00	4,000.00
Nevada.....	5,000.00	50 %	433 wks.	13.85	4.62	2,000.00	2,600.00	3,250.00	5,000.00	5,000.00
New Hampshire.....	3,000.00	50 %	300 wks.	10.00	None	675.00	1,800.00	2,250.00	3,000.00	3,000.00
New Jersey.....	4,000.00	50 %	400 wks.	10.00	(1)	1,800.00	2,400.00	3,000.00	4,000.00	4,000.00
Rhode Island.....	5,000.00	50 %	500 wks.	10.00	4.00	2,000.00	3,000.00	3,750.00	5,000.00	5,000.00
Texas.....	6,000.00	60 %	400 wks.	15.00	5.00	2,000.00	2,800.00	3,600.00	5,030.00	6,000.00
Wisconsin.....	4,500.00	65 %	780 wks.	9.37	4.69	2,250.00	3,600.00	4,500.00	4,500.00	4,500.00
Average except Minnesota.....	\$4,578.00	.....	477 wks.	\$11.20	\$4.73	\$2,210.00	\$2,933.00	\$3,510.00	\$4,342.00	\$4,578.00
						Annual Compensations				
California.....	None	65 % for 240 weeks, 40 % for rest of life.	Life	20.83	4.17	\$216.65 a year for 240 weeks, then \$133.33 a year for life.	\$390.00 a year for 240 weeks, then \$240.00 a year for life.	\$487.50 a year for 240 weeks, then \$300.00 a year for life.	\$682.50 a year for 240 weeks, then \$420.00 a year for life.	\$975.00 a year for 240 weeks, then \$600.00 a year for life.
Illinois.....	None	50 % for 8 years, then 8 % of death benefit for life.	Life	12.00 (3)	5.00	\$280.00 a year for 8 years then \$120.00 a year for life.	\$312.00 a year for 8 years then \$199.68 a year for life.	\$390.00 a year for 8 years then \$249.68 a year for life.	\$546.00 a year for 8 years then \$280.00 a year for life.	\$624.00 a year for 8 years then \$280.00 a year for life.
Nebraska.....	None	50 % for 300 weeks then 40 % for life.	Life	10.00 (1) (4) 8.00 (4)	5.00 (4)	\$234.00 a year for 300 weeks, then \$208.00 a year for life.	\$312.00 a year for 300 weeks, then \$259.60 a year for life.	\$390.00 a year for 300 weeks, then \$312.00 a year for life.	\$520.00 a year for 300 weeks, then \$416.00 a year for life.	\$520.00 a year for 300 weeks, then \$416.00 a year for life.
New York.....	None	66 2/3 %	Life	15.00 (1)	5.00	\$225.00	\$400.00	\$520.00	\$728.00	\$780.00
Ohio.....	None	66 2/3 %	Life	12.00 (1)	5.00	225.00	400.00	520.00	624.00	624.00
Oregon.....	None	(5)	Life	11.54	6.92	360.00-600.00	360.00-600.00	360.00-600.00	360.00-600.00	360.00-600.00
Washington.....	None	(5)	Life	8.07	4.62	240.00-420.00	240.00-420.00	240.00-420.00	240.00-420.00	240.00-420.00
West Virginia.....	None	(5)	Life	6.00	3.00	150.00	300.00	300.00	300.00	300.00

(1)—If wages were less than the minimum, injured receives full wages.

(2)—Payment for life or until \$4,000.00 is used up.

(3)—After 8 years minimum becomes \$10.00 a month and maximum 8 % of death benefit.

(4)—Not based on wages but instead upon number of dependents.

(5)—Louisiana gives 50 % for 400 weeks; maximum \$4,000, minimum \$1,200; it is therefore slightly inferior to the Minnesota law.

(4)—After 300 weeks.

TABLE No. 7—COMPARISON OF COMPENSATION UNDER VARIOUS COMPENSATION LAWS FOR PERMANENT PARTIAL DISABILITIES(1)

State	Percent- age of wage paid	Maxi- mum per week	Mini- mum per week	No. of weeks compen- sation allowed	Loss of Hand Weekly Wages				No. of weeks compen- sation allowed	Loss of Arm Weekly Wages			
					\$4.50	\$12.00	\$15.00	\$21.00		\$1.50	\$12.00	\$15.00	\$21.00
Minnesota.....	50	10.00(1)	\$6.00	150	\$675.00	\$600.00	\$1,125.00	\$1,500.00	\$1,500.00	\$900.00	\$1,200.00	\$1,500.00	\$2,000.00
Connecticut.....	50	10.00	5.00	156	780.00	836.00	1,170.00	1,500.00	1,500.00	1,040.00	1,248.00	1,560.00	2,030.00
Illinois.....	50	12.00	5.00	150	750.00	800.00	1,125.00	1,500.00	1,500.00	1,000.00	1,200.00	1,500.00	2,030.00
Iowa.....	50	10.00(1)	5.00	150	675.00	800.00	1,125.00	1,500.00	1,500.00	900.00	1,200.00	1,500.00	2,030.00
Michigan.....	50	10.00	4.00	150	600.00	800.00	1,125.00	1,500.00	1,500.00	800.00	1,200.00	1,500.00	2,030.00
Nebraska.....	50	10.00(1)	5.00	175	787.50	1,050.00	1,312.50	1,750.00	1,750.00	967.50	1,280.00	1,612.50	2,150.00
Nevada.....	50	13.85	4.62	173	800.00	1,040.00	1,300.00	1,720.00	2,400.00	1,000.00	1,300.00	1,625.00	2,275.00
New Jersey.....	50	10.00(1)	5.00	150	675.00	800.00	1,125.00	1,500.00	1,500.00	930.00	1,200.00	1,500.00	2,000.00
New York.....	60	20.00(1)	5.00	244	1,098.00	1,332.00	2,440.00	3,160.00	4,880.00	1,404.00	2,486.00	3,120.00	4,368.00
Ohio.....	(2)	8.00	4.00	350	450.00	1,200.00	1,500.00	1,800.00	1,800.00	2,400.00	2,600.00	2,800.00	3,400.00
Oregon.....	50	8.00	4.00	328	1,800.00	1,800.00	1,900.00	1,900.00	1,800.00	2,400.00	2,600.00	2,800.00	3,400.00
West Virginia.....	50	8.00	4.00	156	624.00	836.00	1,170.00	1,500.00	1,500.00	1,040.00	1,248.00	1,560.00	2,030.00
Wisconsin.....	65	9.37	4.69	160	750.00	1,248.00	1,499.00	1,499.00	1,499.00	998.00(2)	1,560.00(2)	1,872.00	2,248.00
Loss of Eye													
Minnesota.....	50	10.00(1)	6.00	100	\$450.00	\$600.00	\$750.00	\$1,000.00	\$1,000.00				
Connecticut.....	50	10.00	5.00	104	520.00	624.00	780.00	1,040.00	1,040.00				
Illinois.....	50	12.00	5.00	100	500.00	600.00	750.00	1,000.00	1,000.00				
Iowa.....	50	10.00(1)	5.00	100	450.00	600.00	750.00	1,000.00	1,000.00				
Michigan.....	50	10.00	4.00	125	552.50	600.00	637.50	937.50	1,250.00				
Nebraska.....	50	10.00(1)	5.00	125	552.50	600.00	637.50	937.50	1,250.00				
Nevada.....	50	13.85	4.62	108	450.00	650.00	832.50	1,037.50	1,500.00				
New Jersey.....	50	10.00(1)	5.00	100	500.00	600.00	750.00	1,000.00	1,000.00				
New York.....	60	20.00(1)	5.00	128	576.00	1,024.00	1,280.00	1,792.00	2,560.00				
Ohio.....	(2)	8.00	4.00	170	300.00	1,000.00	1,000.00	1,000.00	1,000.00				
Oregon.....	(2)	8.00	4.00	156	624.00	1,000.00	1,000.00	1,000.00	1,000.00				
West Virginia.....	50	8.00	4.00	156	624.00	1,000.00	1,000.00	1,000.00	1,000.00				
Wisconsin.....	65	9.37	4.69	160	750.00	1,248.00	1,499.00	1,599.00	1,499.00				

(1)—Massachusetts schedule not received at the time this report went to press.

(2)—If at or below elbow.

TABLE No. 7—Continued
COMPARISON OF COMPENSATIONS UNDER VARIOUS COMPENSATION LAWS FOR PERMANENT PARTIAL DISABILITIES

State	Percent- age of wage paid	Maxi- mum per week	Mini- mum per week	No. of weeks compen- sation allowed	Loss of Thumb Weekly Wages			No. of weeks compen- sation allowed	Loss of Great Toe Weekly Wages				
					\$4.50	\$12.00	\$15.00		\$4.50	\$12.00	\$15.00	\$21.00	\$30.00
Minnesota.....	50	\$10.00 (1)	\$6.00	60	\$270.00	\$360.00	\$450.00	\$600.00	\$135.00	\$180.00	\$225.00	\$300.00	\$300.00
Connecticut.....	50	10.00	5.00	38	190.00	228.00	285.00	380.00	190.00	228.00	285.00	380.00	380.00
Illinois.....	50	12.00	5.00	30	300.00	360.00	450.00	630.00	150.00	180.00	225.00	315.00	360.00
Iowa.....	50	10.00	5.00	40	180.00	240.00	300.00	400.00	112.50	150.00	187.50	250.00	250.00
Michigan.....	50	10.00	4.00	60	240.00	360.00	450.00	600.00	120.00	180.00	225.00	300.00	300.00
Nevada.....	50	13.85	4.62	65	300.00	390.00	487.50	682.50	140.00	182.00	227.50	318.50	420.00
New Jersey.....	50	10.00 (1)	5.00	60	270.00	360.00	450.00	600.00	135.00	180.00	225.00	300.00	300.00
New York.....	66 2/3	15.00 (1)	5.00	60	270.00	480.00	600.00	840.00	171.00	304.00	380.00	532.00	570.00
Ohio.....	66 2/3	12.00		60	180.00	480.00	600.00	720.00	90.00	240.00	300.00	360.00	360.00
Oregon.....	(2)			104	600.00	600.00	600.00	600.00	250.00	250.00	250.00	250.00	250.00
West Virginia.....	50	8.00	4.00	26	104.00	156.00	195.00	208.00	104.00	156.00	195.00	208.00	208.00
Wisconsin.....	65	9.37	4.69	60	281.00	468.00	562.00	562.00	140.00	234.00	281.00	281.00	281.00
Loss of Foot													
Minnesota.....	50	10.00 (1)	6.00	125	\$562.50	\$750.00	\$937.50	\$1,250.00	\$787.50	\$1,050.00	\$1,312.50	\$1,750.00	\$1,750.00
Connecticut.....	50	10.00	5.00	130	650.00	780.00	975.00	1,300.00	910.00	1,092.00	1,365.00	1,820.00	1,820.00
Illinois.....	50	12.00	5.00	125	625.00	750.00	937.50	1,312.50	875.00	1,050.00	1,312.50	1,837.50	2,100.00
Iowa.....	50	10.00 (1)	5.00	125	625.00	750.00	937.50	1,250.00	787.50	1,050.00	1,312.50	1,750.00	1,750.00
Michigan.....	50	10.00	4.00	125	500.00	750.00	937.50	1,250.00	700.00	1,050.00	1,312.50	1,750.00	1,750.00
Nebraska.....	50	10.00 (1)	5.00	150	675.00	900.00	1,125.00	1,500.00	967.50	1,290.00	1,612.50	2,150.00	2,150.00
Nevada.....	50	13.85	4.62	151 1/2	700.00	910.00	1,137.50	1,592.50	900.00	1,170.00	1,462.50	2,047.50	2,700.00
New Jersey.....	50	10.00 (1)	5.00	125	562.50	750.00	937.50	1,250.00	787.50	1,050.00	1,312.50	1,750.00	1,750.00
New York.....	66 2/3	20.00 (1)	5.00	205	922.50	1,640.00	2,050.00	2,870.00	1,296.00	2,304.00	2,880.00	4,032.00	5,760.00
Ohio.....	66 2/3	12.00		125	375.00	1,000.00	1,250.00	1,500.00	525.00	1,400.00	1,750.00	2,100.00	2,100.00
Oregon.....	(2)			277 1/2	1,600.00	1,600.00	1,600.00	1,600.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00
West Virginia.....	50	8.00	4.00	156 1/2	624.00	936.00	1,170.00	1,248.00	624.00	936.00	1,170.00	1,248.00	1,248.00
Wisconsin.....	65	9.37	4.69	120	562.00	936.00	1,124.00	1,124.00	750.00	1,248.00	1,499.00	1,499.00	1,499.00

(1) If at or below knee.

TABLE No. 9—COMPENSATION PAYABLE FOR FOUR WEEKS TOTAL TEMPORARY
DISABILITY

State (8)	Wage per-centage paid	Maximum per week	Minimum per week	Waiting period	Weekly Wages				
					\$4.50	\$12.00	\$15.00	\$21.00	\$30.00
Minnesota.....	50 %	\$10.00	(1) \$6.00	2 weeks	\$9.00	\$12.00	\$15.00	\$20.00	\$20.00
Arizona.....	50 %			3 weeks	9.00	24.00	30.00	42.00	60.00
California.....	65 %	20.83	4.17	2 weeks	8.34	15.60	19.50	27.30	39.00
Connecticut.....	50 %	10.00	5.00	2 weeks	10.00	12.00	15.00	20.00	20.00
Illinois.....	50 %	12.00	5.00	1 week	15.00	18.00	22.50	31.50	36.00
Iowa.....	50 %	10.00	(1) 5.00	2 weeks	9.00	12.00	15.00	20.00	20.00
Kansas.....	50 %	15.00	6.00	2 weeks	12.00	12.00	15.00	21.00	30.00
Massachusetts.....	66 2/3 %	10.00	4.00	2 weeks	8.00	16.00	20.00	20.00	20.00
Michigan.....	50 %	10.00	4.00	2 weeks	8.00	12.00	15.00	20.00	20.00
Nebraska.....	50 %	10.00	(1) 5.00	2 weeks	9.00	12.00	15.00	20.00	20.00
Nevada.....	50 %	13.85	4.62	2 wks (4)	9.24	12.00	15.00	21.00	27.70
New Hampshire.....	50 %	10.00		2 weeks	4.50	12.00	15.00	20.00	20.00
New Jersey.....	50 %	10.00	5.00	2 weeks	10.00	12.00	15.00	20.00	20.00
New York.....	66 2/3 %	15.00	(1) 5.00	2 weeks	9.00	16.00	20.00	28.00	30.00
Ohio.....	66 2/3 %	12.00	5.00	1 week	10.00	16.00	20.00	24.00	24.00
Oregon.....	(2)	11.54	(7) 6.92	none	30.00—	30.00—	36.00—	45.00—	45.00—
Rhode Island.....	50 %	10.00	4.00	2 weeks	50.00	50.00	50.00	50.40	72.00
Texas.....	60 %	15.00	5.00	1 week	8.00	12.00	15.00	20.00	20.00
Washington.....	(2)	(2)	6.93	none	15.00	21.60	27.00	37.80	45.00
			(5) (2)		10.80	28.80	30.00—	30.00—	30.00—
West Virginia.....	50 %	6.00	3.00	1 week	9.00	18.00	36.00	50.40	52.50
Wisconsin.....	65 %	9.37	4.69	1 wk (6)	18.00	18.00	18.00	18.00	18.00
Wis. Ry. employes.....	65 %	15.63	6.75	1 wk (6)	14.07	23.40	28.11	28.11	28.11
						23.40	29.25	40.95	46.89

(1)—If earning less than the minimum, then compensation shall equal full wages.

(2)—Not based upon wages, but instead upon number of persons dependent on the injured's earnings, except that in the case of Washington the total compensation in cases of temporary disability can not be more than 60% of injured's wages.

(3)—If disability lasts more than two weeks there is no waiting period.

(4)—If disability lasts more than eight weeks compensation is paid from date of injury.

(5)—If disability lasts more than six months the maximum becomes (\$35.00) a month and the minimum \$4.62 per week (\$20.00 per month). During the first 6 months the compensations are 50% higher, but cannot exceed 60% of wages.

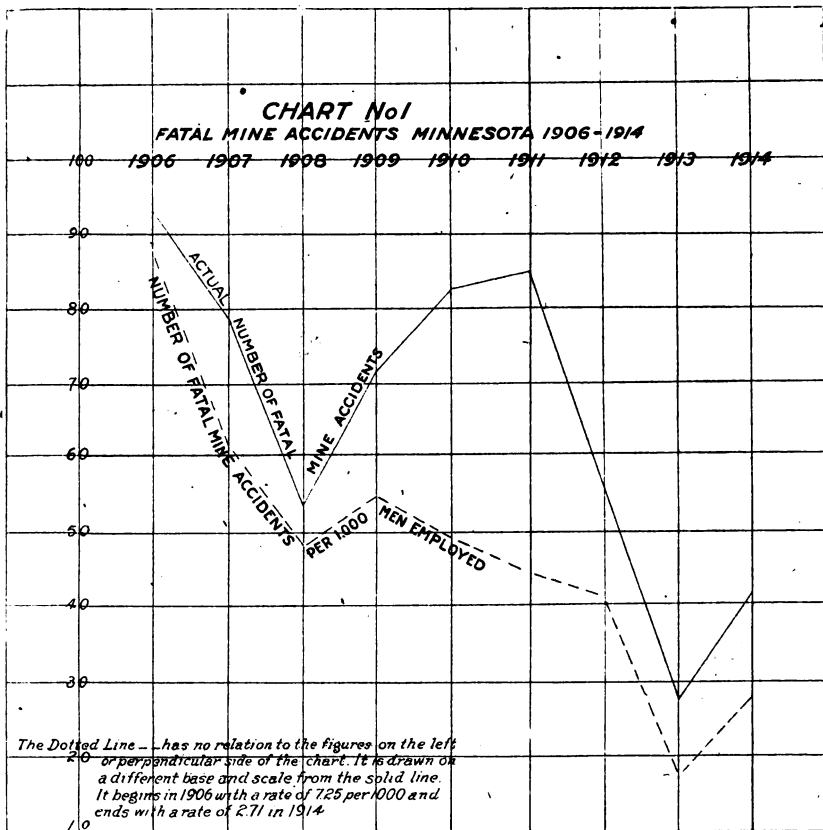
(6)—If disability lasts more than four weeks compensation is paid from date of injury.

(7)—If disability lasts more than six months the maximum becomes \$50 a month and the minimum \$30, but during the first six months the compensation is increased 50%; provided that the increase does not operate to make the compensation exceed 60% of wages.

(8)—Louisiana compensations at various wage rates listed in table would be \$6.00; \$12.00; \$15.00; \$20.00; \$20.00.

PART III. INDUSTRIAL ACCIDENTS.

The 1910 and 1912 reports of this department contained detailed studies of industrial accidents and the causes of industrial accidents in Minnesota. It is not thought necessary to publish a third report covering the same ground this year. The present report consists of a comparison of the number of accidents recorded by the department in each of the last five years.



It will be observed from Table I. that there has been a steady decline in the number of fatal accidents from 251 in 1910 (1) to 149 in 1914, a decrease of 40 per cent in four years. The average number of fatalities during the last three years has been but 141 or only 56 per cent of the fatal rate of 1910. The fact that the low fatality rate has already been maintained for three years gives reasonable ground to hope that it is a permanent achievement, and that the near future holds hope of a record below 100 fatal accidents a year. The decrease during the last four years has al-

(1) Statistical year ended on July 31, 1910, and 1911, and on June 30 during the succeeding years.

ready effected a saving of over 100 lives a year. And who can conceive what that means in human misery averted?

The figures for the four years 1910 to 1913 reveal that non-fatal accidents have also been decreasing in number. The decline from 1910 to 1913 was over 2,600 or about 33 per cent. The figures for 1914 cannot be compared with those of the previous years because the Workmen's Compensation Act, which went into effect on October 1, 1913, more than doubled the number of non-fatal accidents reported. The department was able to secure reports of all fatal accidents during the previous years but large numbers of non-fatal ones were not reported. The efficiency of the reporting system did not vary materially from 1910 to 1913, and comparisons can therefore be made for those years, but not for 1914.

Table II. presents the accident record of the industries inspected by the department of labor. Fatal accidents again show a marked decrease from 109 in 1910 to 63 in each of the last two years. The statistics for non-fatal accidents do not show any material change. The increase in the number of non-fatal accidents in 1911 was entirely due to the vigorous work of the state's inspectors in calling the attention of employers to the accident report law.

The series of tables show the essential facts concerning accidents in all of the industries of the state and in a number of the more important industries studied separately. The marked decrease in mine accidents since 1906 is so instructive for those interested in accident prevention that we have prepared Chart No. 1 to show the decrease in a graphic form. It will be observed that while the solid line, which shows the fluctuation in the actual number of accidents, has a marked upward movement from 1908 to 1911, the dotted line has an almost unbroken downward course. The dotted line shows the number of fatal accidents per year for each 1,000 men employed and is therefore the true index of the relative decline or increase in the number of accidents from year to year.

The list of tables presented is as follows:

- Table 1. Industrial Accidents by Industries, 1910-14.
- Table 2. Industrial Accidents, Industries Inspected by Department of Labor.
- Table 3. Fatal Accidents, by Industries.
- Table 4. Summary of Nature of Injuries.
- Table 5. Nature of Injuries. All Industries.
- Table 6. Injuries Classified by Industries and Nature of the Injuries.
- Table 7. Ages of Injured, All Industries.
- Table 7A. Ages of Injured, by Industries.
- Table 8. Injuries to Females, 1913 and 1914.
- Table 9. Experience of Injured.
- Table 10. Wages of Injured 1913-14 by Industries.
- Table 11. Wages of Injured 1910-14. All Industries.
- Table 12. Nationality of Injured.
- Table 13. Iron Mining, Nature of Injuries.
- Table 14. Railroad Shops, Nature of Injuries.
- Table 15. Lumbering and Woodworking, Nature of Injuries.
- Table 16. Contracting, Nature of Injuries.
- Table 17. Public Utilities, Nature of Injuries.
- Table 18. Metal Working, Nature of Injuries.
- Table 19. Flour Mills, Nature of Injuries.
- Table 20. Summary of Meat Packing Accidents.
- Table 21. Summary of Quarry, Brick and Tile Accidents.
- Table 22. Summary of Agricultural Accidents.

TABLE No. 1—INDUSTRIAL ACCIDENTS BY INDUSTRIES, 1910-14, INCLUSIVE

INDUSTRY	Fatal					Non-Fatal										
	1909-1910	1910-1911	1911- (1) 1912	1912- (2) 1913	1913- (2) 1914	5-Year Total	Annual Average	1909- 1910	1910- 1911	1911- (1) 1912	1912- 1913	1913- (2) 1914	5-Year Total	Annual Average	5-Year Total Fatal & Non-Fatal	5-Year Average Fatal & Non-Fatal
Railroad shops.....	4	2	2	11	2	21	4.2	762	873	826	1,245	809	4,515	903.0	4,536	907.2
Mining.....	83	85	56	28	42	264	58.6	4,424	4,058	1,867	1,442	2,252	14,043	2,808.6	14,337	2,867.4
Lumber and W. W.....	55	34	23	18	22	152	30.4	1,094	1,463	1,043	850	2,428	6,878	1,375.6	7,030	1,406.0
Contracting.....	37	16	16	18	21	108	21.6	683	471	285	448	1,508	3,617	723.4	3,725	745.0
Public utilities.....	18	13	13	8	9	54	10.8	181	243	213	221	1,730	1,366	273.2	1,420	284.0
Agriculture.....	12	11	12	21	12	68	13.6	40	106	116	251	203	716	143.2	784	156.8
Food manufacturing.....	9	3	5	4	5	26	5.2	141	174	139	122	313	889	177.8	915	183.0
Foundries & mach'y.....	7	7	3	5	9	31	6.2	302	528	329	437	1,093	2,769	553.8	2,800	560.0
General manufacturing.....	12	11	9	14	10	56	11.2	384	349	381	302	892	2,228	445.4	2,284	456.8
Mercantile.....	4	6	1	3	6	20	4.0	47	70	70	108	882	1,177	235.4	1,197	239.4
Miscellaneous.....	(3) 10	3	(3)	6	11	36	7.2	55	16	50	16	974	1,111	216.4	1,134	226.8
Totals.....	251	191	139	136	149	866	173.2	8,113	8,351	5,319	5,442	12,084	39,296	7,859.2	40,162	8,032.4
Grand totals fatal and non-fatal.....								8,364	8,542	5,458	5,578	12,233	40,162	8,032.4		

(1) Change in date of statistical year.

(2) First year of reports under Workman's Compensation Act. Reports increased by this fact.

(3) Includes Transfer and Storage, Docks, Municipality, Ice and Fuel, and Miscellaneous Industries listed in table on "Fatal Accidents by Industries."

TABLE No. 3—FATAL ACCIDENTS BY INDUSTRIES

Industry	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Mining.....	83	85	56	28	42	294	58.8
Lumber and woodworking.....	55	34	23	18	22	152	30.4
Railroad shops.....	4	2	2	11	2	21	4.2
Public utilities.....	18	13	6	8	9	54	10.8
Contracting.....	37	16	16	18	21	108	21.6
Flour milling.....	9	3	5	4	5	26	5.2
Foundry and machine shops.....	7	7	3	5	9	31	6.2
Paper and pulp manufacturing.....	3			1		4	.8
Paper boxes and envelopes.....	1					1	.2
Printing and publishing.....	2		1	1		4	.8
Chemicals.....	4	1		2		7	1.4
Laundry.....		1				1	.2
Leather and fur.....	1	4				5	1.0
Meat packing.....	1	2	3	3	2	11	2.2
Brewing and bottling.....				1	1	2	.4
Food products.....		1	1		4	6	1.2
Quarries.....		1	3	3		7	1.4
Brick, cement and sewer pipe.....		1	1	3	3	8	1.6
Mercantile.....	4	6	1	3	6	20	4.0
Docks.....		1		1		2	.4
Agriculture.....	12	11	12	21	12	68	13.6
Transfer and storage.....	7		2	2	2	13	2.6
Ice and fuel.....					4	4	.8
Municipality.....					5	5	1.0
Miscellaneous.....	3	2	4	3		12	2.4
Totals.....	251	191	139	136	149	866	173.2

TABLE No. 4—SUMMARY OF NATURE OF INJURY—ALL INDUSTRIES

Nature of Accident	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Fatal.....	251	191	139	136	149	866	173.2
Loss of part.....	239	284	220	279	359	1,381	276.2
Breaks and fractures.....	457	455	313	427	933	2,585	517.0
Bruises and Crushes.....	3,577	3,091	1,797	1,818	4,066	14,349	2,869.8
Burns and scalds.....	271	239	178	154	365	1,207	241.4
Cuts and lacerations.....	1,866	2,526	1,691	1,563	3,328	10,974	2,194.8
Sprains and dislocations.....	629	687	504	525	1,341	3,686	737.2
Eye injuries.....	792	967	550	589	965	3,863	772.6
Internal.....	60	61	32	56	146	355	71.0
Infections.....					314	314	62.8
Miscellaneous.....	222	41	34	31	267	595	119.0
Totals.....	8,364	8,542	5,458	5,578	12,233	40,175	8,035.0

TABLE No. 5—NATURE OF INJURIES—ALL INDUSTRIES

Part of Body Injured		Loss of Part					Breaks and Fractures							
1909-1910	1910-1911	1911-1912 (11 mo.)	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	
Ankle.....	13	17	19	15	9	73	14.6	17	22	11	9	36	95	19.0
Arm.....								67	65	31	62	107	332	66.4
Back.....								6	6			3	15	3.0
Body.....									1	2			3	0.6
Classical.....								2						
Collar bone.....								7	14	10	11	16	58	11.6
Elbow.....	5	1	1			11	2.2	5			1		6	1.2
Elbow both.....														
Eyes.....	8	9	15	2	6	40	8.0							
Eyes both.....						1	.2							
Feet.....	12	5	3	5	6	31	6.2	1	27	17	24	56	149	29.8
Feet both.....								25	2	4	3	1	10	2.0
Three fingers.....	10	36	12	25	12	104	20.8	58	50	36	70	93	307	61.4
One and two fingers.....	153	181	135	182	249	900	180.0	20	11	6	7	20	64	12.8
Hand.....	8	19	25	20	13	85	17.0	11	20	10	8	17	66	13.2
Head and face.....			3			3	.6	8	5	4	2	6	25	5.0
Hip.....								1				9	10	2.0
Knee.....														
Leg.....	3	1				4	.8	4	2	3			9	1.8
Leg—both.....														
Leg—one.....	8	7	3	2	5	25	5.0	11	110	65	97	128	511	102.2
Ribs.....								45	62	48	55	139	349	69.8
Shoulders.....								13	13	6	10	20	62	12.4
Skull.....								16	11	9	8	19	63	12.6
Skull.....								23	24	29	22	49	147	29.4
Toes.....	4	8	5	11	15	43	8.6	16	9	13	17	24	79	15.8
Wrist.....														
Unclassified.....	5			17	32	60	11.2	1		9	5	185	199	39.8
Arm and leg.....														
Nose.....														
Neck.....						1	.2				8	3	11	2.2
Thigh.....													2	.4
Thigh.....													2	.4
Thigh.....													4	.8
Pelvis.....													6	1.2
Totals.....	239	284	220	279	359	1,381	266.2	457	455	313	427	933	2,585	517.0

TABLE No. 5—NATURE OF INJURIES—ALL INDUSTRIES—Continued

Part of Body Injured	Sprains and Dislocations						Burns and Scalds							
	1909-1910	1910-1911	1911-1912 (11 mo)	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	158	160	125	122	295	860	172.0		3			2	5	1.0
Arm.....	25	24	22	24	66	161	32.2	31	24	17	16	36	124	24.8
Back.....	198	195		153	289	835	167.0			1	3		5	1.8
Body.....	10	28	21	37	75	171	34.2	9	11		8	18	57	11.4
Collar bone.....			1	1	3	6	1.2							
Elbow.....	1	1			2	4	.8							
Foot.....	31	29	21	31	71	183	36.6	22	16	9	14	49	110	22.0
Fingers.....	18	35	28	21	25	127	25.4	11	11	6	15	15	58	11.6
Hand.....	21	10	11	16	24	82	16.2	79	46	45	35	68	273	54.6
Head and face.....		2	7		7	9	1.8	63	63	46	43	71	286	57.2
Hips.....	5	4		1	2	19	3.8					1	1	.2
Knee.....	34	43	26	27	58	188	37.6	2	1	1		3	7	1.4
Legs.....	13	27	23	17	43	123	24.6	19	19	10	12	17	77	15.4
Necks.....	3	1	1	2	7	14	2.8	11	5	4			20	4.0
Ribs.....			1		1	2	.4					1	1	.2
Shoulder.....	35	45	41	27	79	227	45.4	2	25	2	4	1	34	6.8
Toes.....		4	5		7	16	3.2	8	2			1	5	1.6
Wrist.....	66	77	54	45	91	333	66.6	14	12	5	5	16	52	10.4
Unclassified.....	11	1	117	1	196	326	65.2			19	1	57	77	15.4
Totals.....	629	687	504	525	1,341	3,686	737.2	271	239	178	154	365	1,207	241.4

TABLE No. 5—NATURE OF INJURIES—ALL INDUSTRIES—Continued

Part of Body Injured								Bruises and Crushes					Cuts and Lacerations				
1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average		1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average			
59	24	42	32	117	274	54.8		22	19	8	11	18	78	15.6			
127	47	88	74	160	496	99.2		66	77	59	73	93	368	73.6			
130	147	74	107	185	643	128.6		6	4	3	5	10	28	5.6			
369	334	199	179	346	1,427	285.4		10	13	8	20	30	81	16.2			
	12				12	2.4			5			2	5	1.0			
								1					2	.4			
								1					2	.8			
480	308	272	262	698	1,920	384.0		244	190	176	170	352	1,132	226.4			
851	757	387	295	721	3,011	602.2		621	940	592	573	918	3,644	728.8			
401	248	126	159	259	1,193	238.6		374	367	282	226	584	1,833	366.6			
315	207	99	149	207	977	195.4		332	657	355	333	480	2,157	431.4			
26	2	27	16	64	135	27.0		27	23	24	19	5	54	10.8			
119	121	68	87	143	538	107.6		33	58			63	173	34.6			
	2				2	.4											
322	301	181	174	291	1,269	253.8		65	100	60	56	122	403	80.6			
11	4				16	3.2			7	3			17	3.4			
					5	1.0				1			3	.6			
					5	1.0			6	1	5	14	31	6.2			
					475	95.0			29	23	50	76	214	42.8			
					935	187.0		26	29	33	32	56	150	31.8			
					318	63.6		23	30	32	18	49	150	31.8			
					867	16.0		32		55		499	586	117.2			

TABLE No. 6—INJURIES CLASSIFIED BY INDUSTRIES AND NATURE OF THE INJURY

Industry	Breaks and Fractures					Sprains and Dislocations								
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Mining.....	154	165	107	126	154	706	141.2	394	343	198	165	284	1,384	276.8
Lumber and woodworking.....	80	98	66	89	204	537	107.4	67	132	105	116	269	1,689	337.8
Railroad shops.....	18	27	21	34	33	133	26.6	50	68	77	99	60	354	70.8
Public utilities.....	24	28	17	17	48	134	26.8	22	33	34	33	99	221	44.2
Contracting.....	67	40	25	45	141	318	63.6	47	38	22	39	198	344	68.8
Flour milling.....	18	22	9	13	32	94	18.8	21	19	13	24	52	129	25.8
Foundries and machine shops.....	42	23	11	33	49	158	31.6	8	14	11	18	89	131	26.2
Paper and pulp manufacturing.....	*	2	5	3	6	16	4.0		1	1	1	18	22	5.5
Paper Boxes and Envelopes.....		2	1	1	1	1	2		3	2	2	7	12	3.0
Printing and Publishing.....		1	3	5	10	18	4.5		4	2	4	3	13	3.2
Textile.....					5	9	2.2		1		1	10	12	3.0
Flax twine and fibre.....					3	3	0.7		4			2	9	4.2
Chemicals manufacturing.....		3	2	2	3	12	3.0		3			10	13	3.2
Laundries.....	20		1		3	4	1.0	14				3	4	1.0
Leather and fur.....		2	3		3	10	2.5			2	2	2	6	1.5
Meat packing.....		6	5	5	13	29	7.2		2	3	2	10	17	4.2
Quarries.....		4	4	2	35	45	11.2		4	4	2	10	10	2.5
Food products.....			1	6	10	17	4.2		1	3	3	12	19	4.7
Breweries.....			1		7	8	2.0					4	10	2.5
Brick, cement, etc.....		7	2	5		14	3.5		3	7	4	28	42	10.5
Mercantile and hotels.....	9	5	2	3	72	91	18.2	3	10	13	5	115	146	29.2
Dock work.....		2	6	3	3	12	2.4			3		4	7	1.4
Transfer and livery.....	4	1	2	4	39	50	10.0		2	1		19	22	4.4
Ice and fuel.....					15	15	3.0					20	20	4.0
Municipality.....					11	11	2.2					11	11	2.2
Agriculture.....	8	15	14	32	23	92	18.4		2	1	3	4	10	2.0
Miscellaneous.....	13	2	5		8	28	5.6		3	1		11	15	3.0
Totals.....	457	455	313	427	933	2,585	.....	629	687	504	525	1,341	3,686	.....

TABLE No. 6.—INJURIES CLASSIFIED BY INDUSTRIES AND NATURE OF THE INJURY—Continued

Industry	Bruises and Crushes						Cuts and Lacerations							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Mining.....	2,341	1,761	724	486	810	6,122	1,224.4	689	1,189	628	522	626	3,654	730.8
Lumber and woodworking.....	368	475	338	304	857	2,342	468.4	430	503	364	232	745	2,277	455.4
Railroad shops.....	233	267	267	445	291	1,503	300.6	204	214	191	265	135	1,009	201.8
Public utilities.....	56	71	68	72	158	425	85.0	41	48	44	50	95	278	55.6
Contracting.....	268	172	105	183	665	1,393	278.6	217	136	110	112	483	1,046	209.2
Flour milling.....	40	36	41	31	82	230	46.0	46	72	59	37	84	298	59.6
Foundry and machine shops.....	125	164	86	146	304	825	165.0	96	173	90	108	286	759	151.8
Paper and pulp manufacturing.....			8	3	65	83	20.7		13	14	9	29	65	16.2
Paper boxes and envelopes.....			13	10	39	73	18.2		23	13	28	33	97	24.2
Printing and publishing.....			15	4	27	66	16.5		14	37	7	25	83	20.7
Textiles.....			17		32	54	13.5		16	11		16	43	10.7
Flax twine and fibre.....			3	9	24	49	12.2	111	1	2	6	26	35	8.7
Chemicals manufacturing.....	90	3	13		6	9	2.2		1				7	1.7
Laundries.....			5		10	35	8.7		14	11	7	25	57	14.2
Leather and fur.....			11	5	22	39	9.7		18	29	12	50	109	27.2
Meat packing.....			13	5		37	9.2		6	7	2		10	2.5
Quarries.....			1		47	54	13.5		8	1	5		51	17.7
Food products.....			1	1	31	33	8.2				4	53	58	14.5
Breweries.....			7		20	103	142	35.5	11	10	16	44	81	20.2
Brick, cement, etc.....			17	28	28	273	72.0	16	21	36	59	330	462	92.4
Mercantiles and hotels.....	17	24	18	2	14	25	5.0			4	3	7	14	2.8
Dock work.....			2		65	80	16.0			2		20	22	4.4
Transfer and livery.....	6	6	3		47	47	9.2					36	36	7.2
Ice and fuel.....					15	15	3.0					5	5	1.0
Municipality.....					37	125	25.0	7	31	17	68	61	184	36.8
Agriculture.....	10	11	23	44	37	125	25.0							
Miscellaneous.....	14	2	6	1	18	41	8.2	9	2			12	23	4.6
Totals.....	3,577	3,091	1,797	1,818	4,036	14,349	.....	1,866	2,526	1,691	1,563	3,328	10,974	.....

*The figure given for "1909-10" is for all the industries within the bracket, and the totals given in the total columns, and also the averages given opposite the industries included by the brackets is a five year total and a four year average.

TABLE No. 6—INJURIES CLASSIFIED BY INDUSTRIES AND NATURE OF THE INJURY—Continued

Industry	Burns and Scalds						Internal Injuries							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Mining.....	124	90	29	20	38	301	60.2	22	24	14	23	36	119	23.8
Lumber and woodworking.....	16	18	15	15	20	84	16.8	6	11	7	8	20	52	10.4
Railroad shops.....	40	22	31	30	30	153	30.6	5	4	5	3	3	20	4.0
Public utilities.....	21	37	31	24	47	160	32.0	3	6	2	4	8	23	4.6
Contracting.....	19	20	7	15	40	101	20.2	14	4	1	6	18	43	8.6
Flour milling.....	5	8	8	5	8	26	5.2	2	5	1	1	8	9	1.8
Foundries and machine shops.....	26	29	28	20	84	187	37.4	2	5	1	3	8	18	3.6
Paper and pulp manufacturing.....			1	3	5	9	2.2		1				1	.2
Paper boxes and envelopes.....					2	2	.5							
Printing and publishing.....					5	5	1.2							
Textile.....		2	5	1	2	10	2.5							
Flax twine and fibre.....		2	3		2	4	1.0							
Chemicals manufacturing.....		3	5	11	6	25	6.2					2	2	.5
Laundries.....	16	4	1	5	5	10	2.5	3				2	2	.5
Leather and fur.....		3	2	3	1	7	1.7							
Meat packing.....		3	4	1	5	13	3.2		2		1	4	7	1.7
Quarries.....														
Food products.....		1	4	4	20	29	7.2							
Breweries.....		2	1		3	6	1.5							
Brick, cement, etc.....									1		2	2	2	.5
Mercantile and hotels.....		3	1	1	28	34	6.8		2		4	20	1	1.0
Dock work.....	1				1	1	.4				1		26	5.2
Transfer and livery.....					1	1	.2					6	6	1.2
Ice and fuel.....					2	2	.4					2	2	.4
Municipality.....					3	3	.6					5	5	1.0
Agriculture.....				1	1	2	.4		1		1		3	.6
Miscellaneous.....	3	3	4		5	15	3.0	4	1	1		1	7	1.4
Totals.....	271	239	178	154	365	1,207		60	61	32	56	146	355	

TABLE No. 11.—WAGES OF INJURED—ALL INDUSTRIES

Weekly Wages	1909-1910		1910-1911		1911-1912		1912-1913		1913-1914		5 Year Total	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
\$6.00 and less.....	77	2.30	98	3.3	134	4.6	31	1.12	101	1.35	441	2.20
\$6.01 to \$8.00.....	111	3.25	275	9.4	220	7.7	69	2.49	250	3.45	441	2.20
\$8.01 to \$10.00.....	267	8.45	281	9.7	263	9.2	184	6.66	353	4.85	1,348	7.10
\$10.01 to \$12.00.....	1,103	33.35	884	30.4	829	28.8	669	24.19	1,253	17.50	4,738	24.00
\$12.51 to \$15.00.....	1,021	30.75	632	21.7	728	25.4	960	34.72	2,673	37.50	6,014	34.00
\$15.01 to \$17.50.....	253	7.60	213	7.3	190	6.6	192	6.94	1,003	14.40	1,851	9.50
\$17.51 to \$20.00.....	252	7.54	177	6.1	219	7.5	264	9.55	1,736	10.30	1,648	8.40
\$20.01 to \$25.00.....	149	4.50	268	9.3	245	8.5	280	10.13	496	6.85	1,438	7.40
\$25.01 to \$30.00.....	66	2.00	47	1.6	36	1.4	92	3.33	169	2.40	413	2.10
\$30.01 to \$35.00.....	7	.20	21	.7	4	.1	19	.69	56	.75	107	.50
\$35.01 and more.....	9	.26	15	.5	6	.2	5	.19	42	.65	77	.30
Totals.....	3,315	100.00	2,911	100.00	2,877	100.00	2,765	100.00	7,132	100.00	19,000	100.00

TABLE No. 12—NATIONALITY OF INJURED

Nationality	1909-1910		1910-1911		1911-1912		1912-1	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
American.....	740	17.56	393	12.6	606	16.7	776	21.60
Scandinavian.....	734	17.40	492	15.7	562	15.4	548	15.25
German.....	323	7.70	172	5.5	328	9.0	294	8.18
English, Irish, Canadian.....	291	6.94	190	6.1	257	7.0	212	5.90
French.....	73	1.69	75	2.4	81	2.2	66	1.84
Austrian.....	982	23.20	825	26.3	956	26.2	819	22.79
Italian.....	306	7.25	337	10.3	251	6.9	260	7.24
Finn.....	392	9.34	336	10.7	275	7.5	306	8.51
Polish.....	133	3.16	134	4.3	136	3.7	128	3.56
Bohemian.....	53	1.25	31	1.0	47	1.3	48	1.33
Montenegrin.....	46	1.09	10	.3	25	.7	19	.55
Bulgarian.....	29	.69	24	.8	7	.2	21	.58
Hungarian.....	27	.64	24	.8	26	.7	20	.55
Russian.....	27	.64	21	.7	25	.7	33	.92
Greek.....	22	.52	24	.8	13	.4	22	.61
Roumanian.....	13	.31	10	.3	6	.2	1	.03
Negro.....	10	.24	.....	.....	.....	.....	.....	.....
Servian.....	.....	.....	13	.4	5	.2	6	.17
Jew.....	.....	.....	.....	.....	10	.3	13	.36
Belgian.....	.....	.....	.....	.....	5	.2	1	.03
Miscellaneous.....	16	.38	15	.5	19	.5	.....	.....
Total.....	4,217	100.00	3,126	100.0	3,640	100.0	3,593	100.0

TABLE No. 13—IRON MINING—NATURE OF INJURY

Part of Body Injured	Amputations						Fractures							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	1					1	.2	2	11	3	3	6	25	5.0
Arms—both.....						1	.2	19	17				36	7.2
Arm—one.....				1		1	.2			1	13	13	27	5.4
Back.....								1	2			3	6	1.2
Body.....														
Collar bone.....														
Eyes—both.....	2	1			2	5	1.0	4	3	6	2	3	18	3.6
Eye—one.....	5	5	3	1	1	15	3.0							
Feet—both.....	1	1				2	.2							
Foot—one.....	1	1	1	2	2	7	2.2							
Fingers—three.....	16	16	18	19	26	95	19.0	25	20	19	25	26	115	23.0
Finger—one.....							.4							
Hands—both.....	2		2			4	.8	7	2	1	1	4	15	3.0
Hand—one.....			1			1	.2		26	1	1	1	28	5.6
Head and face.....								1	5	1	1	2	10	2.0
Hip.....													3	.6
Knee.....	3	1				4	.8	2					2	.4
Legs—both.....														
Leg—one.....	3	2		1		6	1.2	40	30	20	22	25	137	37.4
Ribs.....								12	15	14	11	19	71	14.2
Shoulder.....								6	4	3	5	7	25	5.0
Skull.....								4	3	5	4	6	19	3.8
Toes.....	1	2	2	2	1	8	1.6	9	12	14	15	21	71	14.2
Wrist.....								5	3	1	7	4	20	4.0
Both ear drums.....								2					2	.4
One ear drum.....								1					1	.2
Jaw and nose.....			1			1	.2	3		7			10	2.0
Unclassified.....	6					6	1.2				4		4	.8
Pelvis.....												1	1	.2
Totals.....	46	29	28	26	32	161	32.2	154	165	107	126	154	708	141.2

TABLE No. 13—IRON MINING—NATURE OF INJURY—Continued

Part of Body Injured	Sprains and Dislocations						Burns and Scalds							
	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average
Ankle.....	101	70	47	33	60	320	64.0		1				1	.2
Arm.....	10	5	9	7	12	43	8.6	19	17		1	5	42	8.4
Back.....	139	105	56	49	99	448	89.6						1	.4
Body.....	2	14	12	9	21	58	11.6	3	2	3		4	12	2.4
Elbow.....						1	1.2							
Foot.....	20	18	4	17	17	76	15.2	4	3	2		2	11	2.2
Fingers, three.....								4	4				4	.5
Fingers, one or two.....	11	19	10	7	3	50	10.0	5		3	1	3	13	2.6
Hand.....	11	3	5	4		23	4.6	36	24	8	5	6	79	15.8
Head and face.....						1	1.2		17	9	5	11	67	13.4
Hip.....	3	4		1		8	1.6		1	1			1	.2
Knee.....	29	24	10	6	13	82	16.4	1	2	1	1		4	.8
Leg.....	4	10	7	5	3	29	5.8	8	4	3	2		24	4.8
Neck.....	3	1	1			5	1.0		6			7	16	3.2
Shoulders.....	15	22	15	8	22	82	16.4	2	1	1	1		5	1.0
Toes.....	3	3	4		3	10	2.0							
Wrist.....	45	36	18	18	28	145	29.0	8	8	1	2	1	20	4.0
Total.....	394	343	198	165	284	1,384	276.8	124	90	29	20	38	301	60.2

TABLE No. 6—INJURIES CLASSIFIED BY INDUSTRIES AND NATURE OF THE INJURY—Continued

Industry	Eye Injuries					Amputations								
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Mining.....	436	446	125	69	150	1,226	245.2	46	29	28	26	32	161	32.2
Lumber and woodworking.....	51	99	67	20	107	344	68.8	76	109	65	60	98	408	81.6
Railroad shops.....	197	249	220	352	225	1,243	248.6	14	20	14	13	14	75	15.0
Public utilities.....	8	14	12	8	29	71	14.2	4	4	3	4	8	23	4.6
Contracting.....	32	41	10	39	106	228	45.6	18	13	4	8	20	63	12.6
Flour milling.....	2	5	3	4	16	30	6.0	9	20	4	4	15	59	11.2
Foundries and machine shops.....	49	97	81	76	210	513	102.6	34	16	22	32	28	132	26.4
Paper and pulp manufacturing.....					3	3	7		2	2	2	8	12	3.0
Paper boxes and envelopes.....			1		3	4	1.0		4	4	1	4	7	1.7
Printing and publishing.....			1	4	2	7	1.7		3	4	4	4	15	3.7
Textiles.....		5	2		4	6	1.5		2	3	2	3	10	2.5
Flax twine and fibre.....		5	15	2	8	30	7.5		1	1			1	2
Chemicals manufacturing.....	15							26						
Laundries.....					5	16	4.0							
Leather and fur.....		2	5	4	4	4	1.0			2	2	2	10	2.5
Meat packing.....				7	4	12	3.0		4	3	3	1	8	2.0
Quarries.....			5			15	3.7		1	2	3	10	16	4.0
Food products.....					1	1	2		3	3	2	3	9	2.2
Breweries.....		1	1		40	42	10.5		2	2	2	3	7	1.7
Brick, cement, etc.....		2		4	24	30	6.0			4	4	11	21	5.2
Mercantile and hotels.....					1	1	2				1	23	24	4.8
Dock work.....														
Transfer and livery.....					1	1	2			1			1	2
Ice and fuel.....														
Municipality.....	2					2	4	12	45	59	102	73	291	58.2
Agriculture.....					8	9	1.8				2		2	4
Miscellaneous.....			1											
Totals.....	792	967	550	589	965	3,863	.....	239	284	220	279	359	1,381	.....

TABLE No. 7—AGES OF INJURED—ALL INDUSTRIES

Age Groups	1909-1910		1910-1911		1911-1912		1912-1913		1913-1914	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
14 to 16 years	70	.89	71	1.2	45	.8	36	.77	45	.65
17 to 21 years	1,268	16.24	879	14.4	705	14.6	579	12.39	904	12.70
22 to 30 years	3,487	44.54	2,502	41.1	2,100	43.5	2,134	45.68	3,062	43.00
31 to 40 years	1,809	23.00	1,521	25.0	1,157	24.0	1,091	23.36	1,762	24.80
41 to 50 years	803	10.63	824	13.6	552	11.4	529	11.33	918	12.90
51 to 60 years	299	3.90	231	3.8	218	4.5	247	5.29	320	4.50
60 years and more	63	.80	53	.9	61	1.2	55	1.18	103	1.45
Totals	7,799	100.00	6,081	100.0	4,838	100.0	4,671	100.00	7,114	100.00

TABLE No. 7A

Industry	Age of Injured, 1913-14							Totals
	14 to 16	17 to 21	22 to 30	31 to 40	41 to 50	51 to 60	61-over	
Contracting	1	126	543	349	191	51	19	1,280
Flour mills...	1	13	91	57	57	18	6	243
Ice and fuel	1	10	41	32	24	7	1	116
Lumbering	13	174	424	247	176	67	17	1,118
Mercantile, retail.	12	97	181	98	58	32	9	487
Mercantile, wholesale.	7	59	98	45	35	11	5	260
Metal.	3	144	380	203	110	43	16	899
Mining.	2	161	940	486	196	33	5	1,823
Paper and pulp	1	43	59	36	12	8	2	161
Public utility.	41	164	119	12	16	3	3	355
Stone products.	4	27	87	54	31	18	15	236
Transfer and storage.	9	54	36	16	16	5	5	136
Totals	45	904	3,062	1,762	918	320	103	7,114
Percentage of whole number of cases. . . . .	.65	12.70	43.00	24.80	12.90	4.50	1.45	100.00

TABLE No. 8—INJURIES TO FEMALES

Industry	Number Injured		Fatal		Serious		Severe		Slight	
	1912-1913	1913-1914	1912-1913	1913-1914	1912-1913	1913-1914	1912-1913	1913-1914	1912-1913	1913-1914
Bakery and confectionery	3	19							3	19
Chemical	1				1					
Cloth and garments, etc	2	27				3	1	3	2	21
Flour milling	1									
Food products		9						2		7
Fibre		2								2
Hotels and restaurants	3	26	1		1			2	2	23
Laundry	5	5			1				4	5
Knitting factory	7						3		7	
Leather and fur	5	9			1		3	1	2	7
Lumber and woodworking	3						1		2	
Mercantile, wholesale		12						1		11
Mercantile, retail	2	53			1			3	2	49
Paper and pulp		8						1		7
Paper boxes, envelopes, etc	13	21			1		2	2	11	18
Manufacture of tin cans	8	6					3		5	6
Printing and publishing	9	12			1			2	8	10
U. of M.	1		1							
Totals	63	209	2		3	7	10	17	48	185

TABLE No. 9—EXPERIENCE OF INJURED—1913-14

Industry	How long in Employer's Service						How long at work on which injured							
	Less than 1 week	Less than 1 mo.	1 mo. to 1 yr.	1 yr. to 5 yrs.	5 yrs. to 10 yrs.	10 yrs. over	Total	Less than 1 week	Less than 1 mo.	1 mo. to 1 yr.	1 yr. to 5 yrs.	5 yrs. to 10 yrs.	10 yrs. over	Total
Contracting.....	185	271	511	154	45	33	1,119	204	196	309	64	23	14	810
Ice and fuel.....	15	14	30	28	6	9	102	20	18	22	17	4	7	78
Flour mills.....	3	21	89	80	31	32	256	16	19	69	66	28	20	218
Lumbering.....	141	277	411	196	37	29	1,091	205	260	309	131	24	14	943
Mercantile, retail.....	26	57	177	151	37	17	465	46	43	119	75	20	13	316
Mercantile, wholesale.....	12	13	128	69	21	6	249	26	11	90	50	8	6	191
Metal.....	34	84	306	306	68	48	880	88	63	221	188	38	28	626
Mining.....	80	137	846	523	172	85	1,843	142	134	721	514	183	78	1,772
Paper and pulp.....	12	25	70	36	4	6	153	18	26	66	14	1	2	127
Public utility.....	23	53	167	105	38	27	413	67	41	123	70	23	16	340
Stone products.....	11	25	79	67	24	21	227	22	24	56	42	17	19	180
Transfer and storage.....	7	14	59	35	9	8	132	15	11	37	30	3	4	100
Totals.....	549	991	2,907	1,750	492	321	7,010	869	836	2,142	1,261	372	221	5,701
Per cent of whole number of cases. . .	7.84	14.10	41.50	25.00	7.00	4.56	100.00	15.25	14.65	37.50	22.20	6.50	3.90	100.00

TABLE 10—WAGES OF INJURED—1913-14—BY INDUSTRIES

Industries	WAGE											Totals
	\$6.01 and less	\$6.01 to \$8.00	\$8.01 to \$10.00	\$10.01 to \$12.50	\$12.51 to \$15.00	\$15.01 to \$17.50	\$17.51 to \$20.00	\$20.01 to \$25.00	\$25.01 to \$30.00	\$30.01 to \$35.00	\$35.00 to over	
Contracting.....	8	11	26	219	525	117	87	178	119	41	28	1,349
Flour mills.....		3	3	41	109	44	29	21	3	2	1	256
Ice and fuel.....		2	4	37	43	21	14	2				125
Lumbering.....	56	179	181	257	227	74	77	26	12	1	2	1,092
Mercantile, retail.....	17	18	42	118	167	40	66	22		4	1	495
Mercantile, wholesale.....	4	10	37	65	76	16	19	6		2	2	238
Metal.....	8	10	30	225	334	94	129	92	15	1	6	944
Mining.....		4		20	861	501	206	82	17	3		1,684
Paper and pulp.....	5	3	5	90	35	4	7	10	3			160
Public utility.....	3	2	12	62	135	78	65	35	5	1	2	398
Stone products.....		7	9	72	94	18	25	18	5	1		249
Transfer and storage.....		1	4	47	67	6	12	4	1			142
Totals.....	101	250	353	1,253	2,673	1,003	736	496	169	56	42	7,132
Per cent of whole number of cases.....	1.35	3.45	4.85	17.50	37.50	14.40	10.30	6.85	2.40	.75	.65	100.00

TABLE No. 14—RAILROAD SHOPS—NATURE OF INJURY—Continued

Part of Body Injured								Bruises and Crushes					Cuts and Lacerations				
1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average		1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average			
	3	3	2	7	1	16	3.2										
Ankle.....	11	9	16	13	15	66	13.2	10	5	4	12	3	34	6.8			
Arm.....	3	8	5	24	9	49	9.8		1				1	.2			
Back.....	22	30	9	29	23	113	22.6	2			5	2	9	1.8			
Body.....		4				4	.8										
Elbow.....																	
Ear.....			13			13	2.6				1			.2			
Eye, one.....			39	70	52	243	48.6	16		12	17	13	12	2.4			
Foot.....	48	34	39	139	84	454	90.8	55	85	16	84	46	377	73			
Fingers.....	62	92	77	139	28	434	86.8	41	39	35	57	33	277	55.4			
Hand.....	29	22	18	37	30	134	26.8	41	39	35	53	27	195	39.0			
Head and face.....	19	22	15	30	23	109	21.8	62	57	59	72	33	283	56.6			
Hips.....			2	1	4	7	1.4		1				1	.2			
Knee.....	4	10	10	27	11	62	12.4	2	1	1.2	2	1	6	1.2			
Legs.....	13	8	18	29	13	81	16.2	3	4	3	6	2	18	3.6			
Neck.....			1			1	.2						1	.2			
Shoulders.....	5	7	10	9	10	41	8.2	2		1			2	.4			
Skull.....			1			1	.2										
Toes.....	14	14	18	26	17	89	17.8	2	3		3	3	11	2.2			
Wrist.....		4	2		1	9	1.8	9	5	3	10	4	31	6.2			
Unclassified.....			11			11	2.2		2				2	.4			
Total.....	233	267	267	445	291	1,503	300.6	204	214	191	265	135	1,009	201.8			

TABLE No. 14—RAILROAD SHOPS—Continued
SUMMARY OF INJURIES

Nature of Injury	1909- 1910	1910- 1911	1911- 1912 11 mos.	1912- 1913	1913- 1914	5-Year Total	Annual Average
Fatal.....	4	2	2	11	2	21	4.2
Amputations.....	14	20	14	13	14	75	15.0
Breaks and fractures.....	18	27	21	34	33	133	26.6
Bruises and crushes.....	233	267	267	445	291	1,503	300.6
Burns and scalds.....	40	22	31	30	30	153	30.6
Cuts and lacerations.....	204	214	191	265	135	1,009	201.8
Electric shocks.....	1	2	.....	.....	.....	3	.6
Internal injuries.....	5	4	5	3	3	20	4.0
Lesser eye injuries.....	197	249	220	352	225	1,243	248.6
Sprains and dislocations.....	50	68	77	99	60	354	70.8
Unclassified.....	.....	.....	.....	4	11	15	3.0
Infections.....	.....	.....	.....	.....	7	7	1.4
Total.....	766	875	828	1,256	811	4,536	907.2

TABLE No. 15—LUMBER AND WOODWORKING—NATURE OF INJURY

Part of Body Injured										Amputations					Breaks and Fractures				
1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average						
3	7	1		1	12	2.4	5	7	4	15	31	6.2							
Arm.....							15	15	1	13	25	69	13.8						
Back.....							1	1				2	.4						
Body.....								1		1		2	.4						
Collar bone.....							2	4	2	3	6	17	3.4						
Eyes—both.....	1					.2													
Eyes—one.....		1		2	4	.8													
Foot.....	5	1	2	1	9	1.8	5	4	1	4	14	28	5.6						
Fingers—three.....	12	14	1	4	33	6.6		1		1		2	.4						
Fingers—one or two.....	50	74	55	44	206	59.2	7	9	7	12	28	57	11.4						
Hand.....		5	2	6	19	3.4	5	2	1	2	3	13	2.6						
Head and face.....			1		1	.2						5	1.4						
Hip.....							1	1	1	1	1	4	.8						
Knee.....												3	.6						
Legs—both.....																			
Leg—one.....	2	3	2	1	3	2.2	23	23	14	30	49	139	27.8						
Ribs.....							8	15	20	16	40	99	19.8						
Shoulders.....								1	2	2		5	1.0						
Skull.....							3		2			5	1.0						
Toes.....	3	4	3	2	10	2.2	4	6	4		11	25	5.0						
Wrist.....							1	3	4	1		9	1.8						
Nose and jaw.....								6		2		8	1.6						
■ Total.....	76	109	65	60	98	408	81.6	80	98	66	89	204	537	107.4					

TABLE NO. 15—LUMBERING AND WOODWORKING—NATURE OF INJURY—Continued

Part of Body Injured	Sprains and Dislocations						Burns and Scalds							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	10	33	25	27	88	183	36.6							
Arm.....	4	7	4	4	14	33	6.6	1	3	2	2	3	11	2.2
Back.....	16	31	27	40	49	163	32.6			1	1		3	1.1
Body.....	1	4	3	2	11	21	4.2	2		2	2	3	9	1.8
Collarbone.....		1				1	0.2							
Elbow.....		1				1	0.2							
Eyes—both.....										1			1	0.2
Eyes—one.....										1			1	0.2
Foot—one.....	2	1	2	4	26	35	7.0	1	1				7	1.1
Fingers—one or two.....	5	7	8	5	5	30	6.0		2	2	2	2	11	2.2
Hand.....	3	1	1	5	3	13	2.6	5	4	4	3	2	18	3.6
Head.....		1				1	0.2	4	4	3	1	3	15	3.0
Head and face.....														
Hip.....			3	5		8	1.6							
Knee.....	2	8	8	4	18	40	8.0							
Legs—one.....	1	4	5	3	7	20	4.0	2	2	1		1	6	1.2
Neck.....		1				1	0.2				1		1	0.2
Shoulders.....		12	7	7	19	45	9.0					1	1	0.2
Toes.....		1				2	0.4						1	0.2
Wrist.....	6	19	11	10	27	73	14.6		2				2	0.4
Unclassified.....	17					17	3.4	1					1	0.2
Total.....	67	132	105	116	269	689	137.8	16	18	15	15	20	84	16.8

TABLE No. 13.—IRON MINING—NATURE OF INJURY—Continued

Part of Body Injured										Bruises and Crushes					Cuts and Lacerations				
1900-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average						
Ankle.	41	37	19	8	29	134	26.8	5	4	6	3	22	4.4						
Arm.	86	74	34	23	29	246	49.2	22	15	14	22	85	17.0						
Back.	96	98	41	46	60	341	68.2	3	2	1	3	12	2.4						
Body.	177	157	82	55	77	548	109.6	3	6	5	7	32	6.4						
Eye.																			
Foot.	306	236	97	79	111	829	165.8	84	65	53	45	290	58.0						
Finger.	573	411	133	66	159	1,342	268.4	297	450	238	209	249	1,443						
Hand.	289	145	30	31	61	576	115.2	161	150	90	58	73	532						
Head and face.	247	116	35	46	43	474	94.8	51	392	160	104	156	863						
Hip.	20	32	12	5	14	83	16.6	7	1	2	2	10	2.0						
Knee.	83	67	28	20	38	236	47.2	10	20	5	8	12	35						
Leg.	210	161	80	48	62	561	112.2	32	44	28	23	22	149						
Neck.	7	7	7	2	2	16	3.2	2	3	3	5	5	1.0						
Shoulder.	55	72	39	38	23	227	45.4	3	4	5	6	43	8.6						
Thigh.	121	129	69	29	95	443	88.6	3	21	7	31	17	76						
Toes.	30	19	5	6	6	66	13.2	8	12	7	3	36	7.2						
Wrist.																			
Totals..	2,341	1,761	724	486	810	6,122	1,224.4	689	1,189	628	522	626	3,654	730.8					

IRON MINING—SUMMARY

Nature of Injury	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average
Fatal.....	83	85	56	28	42	294	58.8
Amputations.....	46	29	28	26	32	161	32.2
Breaks and fractures.....	154	165	107	126	154	706	141.2
Bruises and crushes.....	2,341	1,761	724	486	810	6,122	1,224.4
Burns and scalds.....	124	90	29	20	38	301	60.2
Cuts and lacerations.....	689	1,189	628	522	626	3,654	730.8
Eye injuries.....	436	446	125	69	150	1,226	245.2
Frozen parts.....	5	3	11	.....	5	24	4.8
Internal.....	22	24	14	23	36	119	23.8
Infections.....	.....	.....	.....	.....	80	80	16.0
Sprains and dislocations.....	394	343	198	165	284	1,384	276.8
Unclassified.....	213	8	3	5	37	266	50.0
Total.....	4,507	4,143	1,923	1,470	2,294	14,337	.....

TABLE No. 14—RAILROAD SHOPS—NATURE OF INJURIES

Part of Body Injured	Amputations						Breaks and Fractures							
	1909- 1910	1910- 1911	1911- 1912 (11 mo)	1912- 1913	1913- 1914	5-Year Total	Annual Average	1909- 1910	1910- 1911	1911- 1912 (11 mo)	1912- 1913	1913- 1914	5-Year Total	Annual Average
Ankle.....								1			1	2	4	.8
Arm.....	1	2		1		4	.8	4	6	1	3	5	19	3.8
Back.....										1			1	.2
Collar bone.....									1		2		3	.6
Eye.....			4		1	5	1.0							
Foot.....		2				2	.4		1	2	2	4	9	1.8
Fingers.....	12	12	9	11	12	56	11.2	4	5	6	8	4	27	5.4
Hand.....		3				3	.6				1	1	1	.2
Head and face.....								1	2		2	3	8	1.6
Knee.....	1			1		3	.6	3	6	2	5	1	17	3.4
Legs.....						2	.4		5	3	6	7	21	4.2
Ribs.....			1		1	3	.6	4	1	5	4	6	20	4.0
Toes.....		1								1			1	.2
Wrist.....													1	.2
Shoulders.....														
Total.....	14	20	14	13	14	75	15.0	18	27	21	34	33	133	26.6

TABLE No. 14—RAILROAD SHOPS—NATURE OF INJURY—Continued

Part of Body Injured	Sprains and Dislocations						Burns and Scalds							
	1909- 1910	1910- 1911	1911- 1912 (11 mo)	1912- 1913	1913- 1914	5-Year Total	Annual Average	1909- 1910	1910- 1911	1911- 1912 (11 mo)	1912- 1913	1913- 1914	5-Year Total	Annual Average
Ankle...	12	6	17	24	15	74	14.8							
Arm...	4	2	2	5	2	15	3.0	4		2	3	6	15	3.0
Back...	19	26	16	25	17	103	20.6						1	2
Body...		5	9	12	5	31	6.2		2			5	7	1.4
Collar bone			1			1	.2							
Eyes...										8			8	1.6
Foot...	2	4	5	1	2	14	2.8					1	2	.4
Fingers...		3	2	4		9	1.8		1	1	2		4	.8
Hand...	3	1	3	3	3	13	2.6	14	1	1	6	7	37	7.4
Head and face...								6	12	8	14		47	9.4
Hips...			2			2	.4							
Knee...	1	4	4	8	2	19	3.8	1	4	1	3		1	2
Leg...	1	2	1	5	3	12	2.4	2	1	1			10	2.0
Neck...				1		1	.2						2	.4
Ribs...			1			1	.2							
Shoulders...	2	4	6	2	8	22	4.4					1	2	.4
Wrist...	6	11	8	9	3	37	7.4	13	1	1		2	17	3.4
Total.....	50	68	77	99	60	354	70.8	40	22	31	30	30	153	30.6

TABLE No. 16—CONTRACTING—NATURE OF INJURY—Continued

Part of Body Injured	Bruises and Crushes					Cuts and Lacerations								
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	1					15	22	1	1			3	5	1.0
Arm.....	9	6	5	10	32	62	12.4	4	3		3	9	20	4.0
Back.....	9	8	10	9	31	67	13.4							
Body.....	53	27	14	20	65	179	35.8	1	1			1	4	.8
Eye—one.....														
Foot—one.....	32	30	14	27	108	211	42.2	57	20	29	30	133	269	53.8
Fingers.....	60	32	22	24	137	275	145.0	41	34	24	22	102	223	44.6
Hand.....	22	12	4	21	38	97	19.4	25	16	14	7	48	110	22.0
Head and face.....	12	13	10	19	60	114	22.8	66	45	30	43	122	306	61.2
Hip.....	2		1	2	21	26	5.2						1	.2
Knee.....	12	7	5	9	27	60	12.0	5	3	1	2	6	17	3.4
Leg—one.....	23	13	9	20	57	122	24.4	14	5	4	4	20	47	9.4
Neck.....	1					2	.4		2				3	.6
Shoulders.....	13	1	1	8	29	59	11.8		1	1		1	2	.4
Toes.....	11	15	6	9	39	80	15.0	3	6	2	1	11	23	4.6
Wrist.....	8		2	1	5	16	3.2		2			9	11	2.2
Unclassified.....					1	1	.2					2	2	.4
Total.....	268	172	105	183	665	1,393	278.6	217	139	110	112	468	1,046	209.2

TABLE No. 15—Contracting—Continued—SUMMARY OF ACCIDENTS

Nature of Injury	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average
Fatal.....	37	16	16	18	21	108	21.6
Amputations.....	18	13	4	8	20	63	12.6
Breaks and fractures.....	67	40	25	45	141	318	63.6
Bruises and crushes.....	268	172	105	183	665	1,393	278.6
Burns and scalds.....	19	20	7	15	40	101	20.2
Cuts and lacerations.....	217	139	110	112	468	1,046	209.2
Eye injuries.....	32	41	10	39	106	228	45.6
Internal injuries.....	14	4	1	6	18	43	8.6
Overcome by gas.....	1	4	1	.....	1	7	1.4
Sprains and dislocations.....	47	38	22	39	198	344	68.8
Unclassified.....	.....	.....	.....	1	57	58	11.6
Infections.....	.....	.....	.....	.....	16	16	.32
Total.....	720	487	301	466	1,751	3,725	745.0

TABLE No. 17—PUBLIC UTILITIES—NATURE OF INJURY

Part of Body Injured		Amputations						Breaks and Fractures							
		1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.									1	5	3		1	2	4
Arm.							1	1	7				11	26	5.2
Back.				1					1	3				8	2.2
Collar bone.									1	1	1	1		4	1.6
Foot.	1		1				2	4		2	2		6	9	1.8
Fingers.	3	3	1		6		13	2.6	2		1	1	3	7	1.4
Hand.										2	2	1	1	4	.8
Head and face															
Hip.									2	1	2	1		2	.4
Hip.														2	.4
Legs—both.											1			1	.2
Legs—one.			1				1	.2	5	7		1	10	28	5.6
Ribs.										2	1		3	9	1.8
Shoulders.									2	3			1	6	1.2
Skull.									2	2			•	5	1.0
Toes.		1		3	1		5	1.0	1	2	1			4	.8
Wrist.										2	3	3	5	13	2.6
Neck.											1			1	.2
Pelvis.												2		4	.8
Nose.														2	.4
Knee.													2	2	
Eye.							1	.2							
Total.	4	4	3	4	8	23	4.6	24	28	17	17	48	134	26.8	

*Total permanent disability.

TABLE No. 17.—PUBLIC UTILITIES—NATURE OF INJURY—Continued

Part of Body Injured	Sprains and Dislocations						Burns and Scalds							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	9	13	10	8	22	62	12.4							
Arm.....	3					15	3.0	3	4	6	2	4	19	3.8
Back.....	3	6	5	10	28	52	10.4	1		2	3	3	7	1.4
Body.....		1		3	8	12	2.4							
Foot.....			2	1	2	5	1.0		1	1		1	4	1.8
Fingers.....			4	2	3	9	1.8	1		1	1	5	9	1.8
Hand.....	1	1	1		2	5	1.0	6	17	7	7	15	52	10.4
Head and face.....								8	11	10	8	10	47	9.4
Hip.....	2	1			1	4	.8							
Knee.....		2	1	2	2	7	1.4					2	2	.4
Legs—both.....										1		2	2	.6
Leg—one.....	1	1	4		4	10	2.0	1	1				2	.4
Neck.....										1			1	.2
Shoulders.....	2	2	3	3	8	18	3.6						1	.2
Wrist.....	1	6	2	1	11	21	4.2		2	3	2	4	11	2.2
Collar bone.....				1		1	.2							
Total.....	22	33	34	33	99	221	44.2	21	37	31	24	47	160	32.0

TABLE No. 15—LUMBERING AND WOODWORKING—NATURE OF INJURY—Continued

Part of Body Injured	Bruises and Crushes					Cuts and Lacerations								
	1909-1910	1910-1911	1911-1912	1912-1913	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	
Ankle.....	5	16	11	9	56	97	19.4	14	10	2	2	9	37	7.4
Arm.....	8	17	13	7	37	82	16.4	14	28	13	10	22	87	17.4
Back.....	17	14	15	17	54	117	23.4	1	1	1	1	2	5	1.0
Body.....	54	54	49	40	100	297	59.4	2	3	2	2	7	16	3.2
Foot.....	42	52	53	38	126	311	62.2	63	62	41	21	110	297	59.4
Fingers—three or four.....	65	82	56	51	138	392	78.4	128	159	127	86	258	758	151.6
Fingers—one or two.....	29	37	21	24	46	160	32.0	68	85	76	41	118	388	77.6
Hand.....	22	36	19	17	40	134	26.8	98	79	61	41	80	359	71.8
Head and face.....	2	6	5	8	22	43	8.6	1	1	1	1	4	4	1.0
Hip.....	11	18	22	17	38	106	21.2	13	27	11	4	35	90	18.0
Knee.....	46	86	42	40	95	309	61.8	2	27	19	11	46	105	21.0
Leg.....	3	21	8	15	31	75	15.0	3	6	1	1	5	2	0.4
Neck.....	25	33	19	14	51	142	28.4	10	10	9	9	30	59	11.8
Shoulders.....	37	3	4	7	14	30	6.0	4	12	9	40	22	51	10.2
Toes.....	37	3	4	7	14	30	6.0	4	12	9	40	22	51	10.2
Wrist.....	37	3	4	7	14	30	6.0	4	12	9	40	22	51	10.2
Unclassified.....	37	3	4	7	14	30	6.0	4	12	9	40	22	51	10.2
Total.....	368	475	338	304	857	2,342	468.4	430	503	364	232	748	2,277	455.4

TABLE No. 15—LUMBER AND WOODWORKING—SUMMARY—Continued

Nature of Injuries	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average
Fatal.....	55	34	23	18	22	152	30.4
Amputations.....	76	109	65	60	98	408	81.6
Breaks and fractures.....	80	98	66	89	204	537	107.4
Bruises and crushes.....	368	475	338	304	857	2,342	468.4
Burns and scalds.....	16	18	15	15	20	84	16.8
Cuts and lacerations.....	430	503	364	232	748	2,277	455.4
Eye injuries.....	51	99	67	20	107	344	68.8
Frozen parts.....	.....	9	14	.....	31	54	10.8
Internal injuries.....	6	11	7	8	20	52	10.4
Sprains and dislocations.....	67	132	105	116	269	689	137.8
Unclassified.....	.....	9	2	6	20	37	7.4
Infections.....	.....	.....	.....	.....	54	54	10.8
Total.....	1,149	1,497	1,066	868	2,450	7,030	1,406.0

TABLE No. 16—CONTRACTING—NATURE OF INJURY

Part of Body Injured	Amputations					Breaks and Fractures								
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....							.4	3	3	2	1	10	19	3.8
Arm.....	2						.2	9	6	3	11	22	51	10.2
Back.....								1					1	.2
Collar bone.....								5			3	1	9	1.8
Eyes—both.....	1	2				3	.6							
Eye—one.....		1				1	.2							
Foot.....		1	4		1	3	1.6							
Fingers.....	12	8	4	8	15	47	9.4	6	3	1	1	12	15	3.0
Hand.....					1	1	.2	1	1	1	3	3	6	1.2
Head and face.....								4	4		4	4	12	2.4
Hip.....								2				3	5	1.0
Legs—both.....							.2	1		1			2	.4
Legs—one.....		1			1	4	.8	16	18	5	11	19	69	13.8
Ribs.....	2	1						8	4	4	7	35	58	11.6
Shoulders.....								3	4	1		3	8	1.6
Skull.....								2	1	2	1	3	8	1.6
Toes.....					1	1	.2	1	2	2	2	7	12	2.4
Wrist.....	1					1	.2	5	1	1		5	14	2.8
Neck.....											1	2	3	.6
Total.....	18	13	4	8	20	63	12.6	67	40	25	45	141	318	63.6

TABLE No. 16—CONTRACTING—NATURE OF INJURY—Continued

Part of Body Injured	Sprains and Dislocations						Burns and Scalds							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	13	13	12	12	63	113	22.6	1	1	1	2	2	2	4
Arm.....	1	2	1	2	6	12	2.4	1	1	1	2	5	0	1.8
Back.....	9	11	4	6	46	79	15.8	1	1	1	1	2	3	6
Body.....	1	2	2	2	7	12	2.4	1	2	4	1	3	10	2.0
Foot—one.....	5	2	2	1	12	22	4.4	2	2	4	2	3	7	1.4
Fingers—one or two.....	1	1	1	2	6	8	1.6	7	4	4	3	9	26	5.2
Hand.....	1	1	1	2	5	8	1.6	7	4	4	3	14	32	6.4
Head and face.....	1	1	1	1	1	1	1	1	4	8	6	11	2	4
Hip.....	1	1	1	3	9	14	2.8	1	1	1	1	3	5	1.0
Knee.....	1	1	1	1	17	21	4.2	2	2	1	1	3	2	4
Leg—one.....	2	1	1	1	2	2	4	1	1	1	1	1	3	4
Neck.....	7	3	1	3	8	22	4.4	1	1	1	1	1	3	6
Shoulder.....	6	2	2	4	14	28	5.6	1	1	1	1	1	1	6
Wrist.....	6	2	2	4	2	2	4	1	1	1	1	1	1	6
Toes.....	1	1	1	1	2	2	4	1	1	1	1	1	1	6
Total.....	47	38	22	39	198	344	68.8	19	20	7	15	40	101	20.2

TABLE No. 18—METAL WORKING—NATURE OF INJURY—Continued

Part of Body Injured	Bruises and Crushes						Cuts and Lacerations							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	5	2	2	2	2	9	17	3.4	2	5	.....	1	3	.6
Arm.....	2	.....	2	6	15	25	5.0	7	4	.....	9	9	34	6.8
Back.....	2	5	.....	3	4	14	2.8	.....	.....	1	.....	.....	1	.2
Body.....	8	7	3	7	12	37	7.4	.....	.....	.....	1	6	7	1.4
Elbow.....	.....	7	.....	.....	.....	7	1.4	.....	.....	.....	.....	.....	.....	.....
Eye.....	.....	.....	2	.....	.....	2	.4	.....	.....	.....	.....	.....	.....	.....
Foot.....	20	24	17	25	54	140	28.0	5	13	2	10	15	2	.4
Fingers.....	43	73	36	49	110	311	62.2	28	87	33	48	134	47	9.4
Hand.....	12	15	3	7	26	63	12.6	20	30	24	12	57	330	66.0
Head and face.....	5	7	2	8	8	30	6.0	24	33	17	20	37	143	28.6
Knee.....	3	1	2	3	4	13	2.6	2	3	1	.....	3	9	1.8
Leg—both.....	.....	4	.....	.....	.....	4	.8	8	.....	.....	.....	.....	.....	.....
Leg—one.....	12	.....	2	16	24	54	10.8	.....	3	.....	3	8	22	4.4
Neck.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.2
Shoulders.....	1	.....	1	3	6	11	2.2	.....	.....	.....	.....	.....	1	.2
Toes.....	14	18	14	16	28	90	18.0	1	2	2	1	6	12	2.4
Wrist.....	1	1	.....	1	4	7	1.4	.....	2	1	4	9	16	3.2
Total.....	125	164	86	146	304	825	165.0	96	179	90	108	286	759	151.8

TABLE No. 18—METAL WORKING—Continued—SUMMARY

Nature of Injury	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average
Fatal.....	7	7	3	5	9	31	6.2
Amputations.....	34	16	22	32	28	132	26.4
Breaks and fractures.....	42	23	11	33	49	158	31.6
Sprains and dislocations.....	8	14	11	18	80	131	26.2
Bruises and crushes.....	125	164	86	146	304	825	165.0
Burns and scalds.....	26	29	28	20	84	187	37.4
Cuts and lacerations.....	96	179	90	108	286	759	151.8
Eye injuries.....	49	97	81	76	210	513	102.6
Internal injuries.....	2	5	.....	3	8	18	3.6
Unclassified.....	.....	.....	.....	1	24	25	5.0
Infections.....	.....	1	.....	.....	20	21	4.2
Total.....	389	535	332	442	1,102	2,800	560.0

TABLE No. 19—FLOUR MILLS AND GRAIN ELEVATORS—NATURE OF INJURY

Part of Body Injured	Amputations						Breaks and Fractures							
	1909-1910	1910-1911	1911-1912	1912-1913	1912-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	1	1				1	.3	1	3	3	1	1	3	.6
Arm.....				1								5	18	3.6
Back.....													2	.2
Body.....													1	.2
Collar bone.....													1	.4
Fingers—three.....	3					3	.6							
Fingers—one or two.....	6	16	3	4	15	44	8.8	1	3	3	4	7	18	3.6
Hand.....	1			1		2	.4	2	2	1	1	2	5	1.0
Head and face.....														
Knee.....														
Knee—both.....								1		1			1	.2
Legs—one.....								1					2	.4
Legs—both.....								2	2				4	.8
Ribs.....								1					1	.2
Shoulders.....								3	3			5	10	2.0
Skull.....								5	3	1	1	6	16	3.2
Wrist.....								1	1			1	3	.6
Foot.....													1	.2
Root.....	1			1		2	.4	2	2		1	2	3	.6
Unclassified.....			1			1	.2						4	.8
Toes.....				1		1	.2						1	.2
Total.....	9	20	4	8	15	56	11.2	18	22	9	13	32	94	18.8

TABLE No. 19—FLOUR MILLS AND GRAIN ELEVATORS—NATURE OF INJURY—Continued

Part of Body Injured	Sprains and Dislocations						Burns and Scalds							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	3	2	2	8	12	27	5.4							
Arm.....	2	3	2	2	4	11	2.2							
Back.....	5	4	6	7	8	30	6.0							
Body.....	1			1	2	4	.8	1						.2
Fingers—three.....	1					1	.2							
Fingers—two or one.....		1		1	7	9	1.8							
Head.....		2				3	.6							
Head and face.....		1				1	.2	2		4	2	4	12	2.4
Knee.....	1	3	1	1	4	10	2.0							
Leg—one.....	2	1	1	1	4	9	1.8							
Shoulders.....	5	1	1		6	13	2.6							
Skull.....											1			
Wrist.....	1	1	1	1	2	6	1.2				1			.2
Foot.....		1	1	2	1	5	1.0							
Unclassified.....					1	1	.2					1	1	.2
Total.....	21	19	13	24	52	129	25.8	5		8	5	8	26	5.2

TABLE No. 17—PUBLIC UTILITIES—NATURE OF INJURY—Continued

Part of Body Injured	Bruises and Crushes						Cuts and Lacerations							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....		1	1	1	1	4	.8	1				1	3	.6
Arm.....	2	6	7	1	8	24	4.8	2				4	14	2.8
Back.....	1	3	5	3	8	20	4.0						2	.4
Body.....	13	5	14	15	15	62	12.4	1				2	2	.2
Feet—both.....			10			10	2.0						1	
Foot—one.....	8	9	10	8	13	48	9.6	5	6	13	2	21	47	9.4
Fingers.....	8	17	7	10	32	74	14.8	9	14	6	15	22	66	13.2
Hand.....	2	6	4	5	16	33	6.6	11	17	10	8	16	52	10.4
Head.....	2	4	1	3	9	17	3.4	10	12	9	15	17	63	12.6
Head and face.....		2	4		1	8	1.6							
Hips.....	1	2	4		3	10	2.0	1	1	1			4	.8
Knee.....	3	7		3	7	20	4.0	1	1	2	2	6	13	2.6
Leg.....	7	2	1	11	10	31	6.2	1	2					
Shoulders.....	4	5	2	4	15	30	6.0							
Toes.....	7	3	2	8	22	42	8.4			1		1	5	1.0
Wrist.....		1			—	2	.4		4			2	8	1.6
Total.....	56	71	68	72	158	425	85.0	41	48	44	50	95	278	55.6

TABLE No. 17—PUBLIC UTILITIES—Continued—SUMMARY OF ACCIDENTS

Nature of Injuries	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average
Fatal.....	18	13	6	8	9	54	10.8
Amputations.....	4	4	3	4	8	23	4.6
Bruises and crushes.....	56	71	68	72	158	425	85.0
Burns and scalds.....	21	37	31	24	47	160	32.0
Cuts and lacerations.....	41	48	44	50	95	278	55.6
Breaks and fractures.....	24	28	17	17	48	134	26.8
Internal injuries.....	3	6	2	4	8	23	4.6
Overcome by gas.....	1	2	2	4	5	14	2.8
Eye injuries.....	8	14	12	8	29	71	14.2
Sprains and dislocations.....	22	33	34	33	99	221	44.2
Unclassified.....	1	.....	.....	5	5	11	2.2
Infections.....	.....	.....	.....	.....	6	6	1.2
Total.....	199	256	219	229	517	1,420	284.0

TABLE No. 18—METAL WORKING—NATURE OF INJURY

Part of Body Injured		Amputations						Breaks and Fractures						
		1909-1910	1910-1911	1911-1912	1912-1913	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	1					1	.2	3	2		3	2	6	1.2
Arm.....								3	1		2	9	16	3.2
Collar bone.....	28	15	17	31	22	113	22.6	1	1	1	1	4	4	.8
Finger.....	3		4			10	2.0	9	8	3	7	13	40	8.0
Eye.....				1	1	2	.4	2						
Foot.....						3	.6	2	1	1	5	7	15	3.0
Hand.....	2		1					2	1		1	3	7	1.4
Head and face.....								1	1	1	1		3	.6
Hip.....														
Knee.....								1					1	.2
Leg.....					1	1	.2	9	2	2	7	7	27	5.4
Ribs.....								5	3	1	3	5	17	2.4
Skull.....								3	1		1	1	5	1.0
Toes.....		1			1	2	.4	2	2	2	1	2	7	1.4
Wrist.....								1	1		1	1	5	1.0
Arm and leg.....								1					1	.2
Jaw bone.....													1	.2
Nose.....													2	.4
Total.....	34	16	22	32	28	132	26.4	42	23	11	33	49	158	31.6

TABLE No. 18—METAL WORKING—NATURE OF INJURY—Continued

Part of Body Injured	Sprains and Dislocations					Burns and Scalds								
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....	3	3	3	3	16	28	5.6	..	2	..	..	..	10	2.0
Arm.....	..	..	1	1	6	8	1.6	..	..	1	..	..	1	2.2
Back.....	3	1	1	6	27	38	7.6	..	..	..	..	1	2	4.4
Body.....	..	..	..	2	9	12	2.4	..	..	..	..	..	8	1.6
Eye.....	..	..	..	..	..	..	..	..	..	8	..	..	65	13.0
Foot.....	..	2	2	2	8	14	2.8	14	6	12	6	27	2	5.5
Fingers.....	..	..	..	2	3	6	1.2	..	..	..	2	..	2	1.0
Head.....	1	1	1	1	1	4	.8	5	13	4	2	16	40	8.0
Head and face.....	..	..	..	..	..	..	..	2	6	2	3	15	28	5.6
Hip.....	..	..	1	..	1	2	.4	..	..	..	..	..	..	..
Knee.....	1	1	1	..	2	1	.6	..	..	..	..	..	..	..
Leg.....	..	1	1	..	2	1	.2	1	1	1	4	3	10	2.0
Neck.....	..	..	..	..	..	..	..	..	..	..	..	..	2	4.4
Shoulders.....	..	1	1	1	1	5	1.0	..	..	..	1	..	3	1.6
Wrist.....	1	2	2	..	5	9	1.8	..	..	..	..	..	8	1.6
Unclassified.....	..	..	..	..	..	..	..	..	..	..	1	..	1	2.2
Toes.....	..	..	..	..	..	..	..	..	..	..	..	5	5	1.0
Total.....	8	14	11	18	80	131	26.2	26	29	28	20	84	187	37.4

TABLE No. 19—FLOUR MILLS AND GRAIN ELEVATORS—NATURE OF INJURY—Continued

Part of Body Injured	Bruises and Crushes						Cuts and Lacerations							
	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average	1909-1910	1910-1911	1911-1912	1912-1913	1913-1914	5-Year Total	Annual Average
Ankle.....		1	1		1	3	6					6	25	5.0
Arm.....	1	5	3	2	4	15	3.0		5		5			
Back.....		2	1		2	9	1.8							8
Body.....	11	4	6	4	13	38	7.6	1			1	2	4	1.2
Eye.....										3				
Fingers—one or two.....	10	6	7	8	19	50	10.0	11	22	26	11	31	101	20.2
Foot.....	2	4	4	3	9	22	4.4	7	2	2	6	3	8	5.2
Hand.....	6	4	6	3	5	24	4.8	10	13	11	8	16	58	11.6
Head and face.....	2	2	5	2	3	14	2.8	7	11	6	7	8	39	7.8
Hip.....	1					1	2	2						
Knee.....	1	2		6	5	14	2.8		2	1	1	1	5	1.0
Leg—one.....	2	4	5	1	14	26	5.2	2	2	2	2	8	14	2.8
Neck.....								1	1				2	4
Shoulders.....	2		1		1	4	8					1	3	6
Toes.....	2	2	1		4	9	1.8			2	1	2	6	1.2
Wrist.....			1			1	2	2	4	1	1	1	9	1.8
Total.....	40	36	41	31	82	230	46.0	46	72	59	37	84	298	59.6

TABLE No. 19—FLOUR MILLS AND GRAIN ELEVATORS—Continued—SUMMARY

Nature of Injury	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average
Fatal.....	9	3	5	4	5	26	5.2
Amputations.....	9	20	4	8	15	56	11.2
Breaks and fractures.....	18	22	9	13	32	94	18.8
Bruises and crushes.....	40	36	41	31	82	230	46.0
Burns and scalds.....	5	.....	8	5	8	26	5.2
Cuts and lacerations.....	46	72	59	37	84	298	59.6
Eye injuries.....	2	5	3	4	16	30	6.0
Internal injuries.....	.....	.....	1	.....	8	9	1.8
Sprains and dislocations.....	21	19	13	24	52	129	25.8
Infections.....	.....	.....	.....	.....	8	8	1.6
Unclassified.....	.....	.....	1	.....	8	9	1.8
Total.....	150	177	144	126	318	915	18.3

TABLE No. 20—MEAT PACKING—SUMMARY OF ACCIDENTS

Nature of Injury	1910- 1911	1911- 1912	1912- 1913	1913- 1914	4-Year Total	Annual Average
Fatal.....	2	3	3	2	10	2.5
Amputations.....	4	.....	3	1	8	2.0
Breaks and fractures.....	6	5	5	13	29	7.25
Bruises and crushes.....	11	5	1	22	39	9.75
Cuts and lacerations.....	18	29	12	50	109	27.25
Burns and scalds.....	3	4	1	5	13	3.25
Internal injuries.....	2	.....	.....	4	7	1.75
Sprains and dislocations.....	2	3	2	10	17	4.25
Infections.....	.....	.....	.....	17	17	4.25
Eye injuries.....	.....	.....	.....	4	4	1.00
Unclassified.....	.....	.....	.....	4	4	1.00
Total.....	48	49	28	132	257	51.4

TABLE No. 21—SUMMARY OF QUARRY, STONE, SEWER PIPE AND BRICK MFG.

Nature of Injury	1910- 1911	1911- 1912	1912- 1913	1913- 1914	4-Year Total	Annual Average
Fatal.....	2	4	6	3	15	3.75
Amputations.....	3	6	4	11	24	6.00
Breaks and fractures.....	11	6	7	35	59	14.75
Bruises and crushes.....	20	30	25	103	178	4.45
Cuts and lacerations.....	17	12	18	44	91	22.75
Sprains and dislocations.....	7	11	6	28	52	13.00
Eye injuries.....	1	6	5	40	52	13.00
Internal injuries.....	1		2	1	4	1.00
Hand frozen.....			1		1	.25
Infections.....				4	4	1.00
Unclassified.....				5	5	1.25
Total.....	62	75	74	274	485	121.25

TABLE No. 22—AGRICULTURE—SUMMARY OF ACCIDENTS

Nature of Injury	1909- 1910	1910- 1911	1911- 1912	1912- 1913	1913- 1914	5-Year Total	Annual Average
Fatal.....	12	11	13	21	12	69	13.8
Amputations.....	12	45	59	102	73	291	58.0
Breaks and fractures.....	8	15	14	32	23	92	18.4
Bruises and crushes.....	10	11	23	44	37	125	25.0
Burns and scalds.....				1	1	2	.4
Cuts and lacerations.....	7	31	17	68	61	184	36.8
Eye, lesser.....	2					2	.4
Internal injuries.....	1		1	1		3	.6
Sprains and dislocations.....		2	1	3	4	10	2.0
Unclassified.....		2			4	6	1.2
Total.....	52	117	128	272	215	784	156.8

*Jaw dislocated; shoulder dislocated.

■Ankle sprained.

PART IV.

INSPECTIONS AND ORDERS.

"Safety First" is the motto of the bureau of factory inspection and the results attained during the past few years prove it is not a meaningless phrase. The other duties of the bureau were not slighted, but safety of life, health and morals has been held foremost. No effort was made during the biennial period to gather industrial statistics. The figures given in this report refer to establishments inspected and are not an industrial census. The additional work made necessary by the new factory law enacted by the 1913 legislature and the workmen's compensation law made a systematic inspection of all the industrial plants of the state inadvisable and forced concentration on the large factories and workshops. These were all inspected in 1913 and the department intended to inspect the smaller factories in the villages and towns during 1914 so that every factory would be visited in the two-year period. But the new safety act contained so many requirements that were more applicable to the conditions in the large factories that it was deemed imperative to reinspect them first and visit the smaller factories later. The effects of this new law are apparent in the increased number of orders issued, the orders for machinery safeguards increasing over 600 per cent. Some credit for the showing made must also be credited to the reorganization of the department.

Orders issued are, in this department, orders complied with. The department follows up every order to see that it is obeyed. About fifty orders were cancelled, either because the firm went out of business, or because employers ordered to provide separate toilets for women discharged the women, or (in only 10 cases) because the inspectors could not demonstrate the practicability of the order. The splendid compliance of the employers with the orders was accomplished with very little friction. In fourteen factories the inspectors attached danger signs to machinery, and sealed it up, prohibiting its further use until the proper safeguards were provided. Only four prosecutions to enforce orders were necessary: one to compel safeguards on machinery, two to provide hand rails on stairs and one to furnish adequate toilet facilities for employes. In the last three cases the defendants pleaded guilty and sentence was suspended when they promised to comply. The fourth case is still pending. One piece of machinery which was sealed up in April, 1914, is still sealed up and idle. In the other cases the proprietors immediately got busy on the guards when they found that they could not use their machines, and the seals were removed the same day that they were attached. Some of the machinery sealed was as follows: (1) the grinding rolls in flour mills in two cases, (2) the engine of a municipal electric light plant, (3) a twelve-inch emery wheel, one inch thick at the base and tapering to five-eighths of one inch at the surface which had been running 2,350 revolutions a minute though cracked, and with no guard or safety collar on it. In addition to the fourteen cases of sealing machinery the inspectors also condemned and had torn down two water towers, owned by municipalities, because of their dangerous condition.

Exceptionally good results are already being obtained through the provisions contained in section 5 of the safety act which requires the maker

to guard the points of danger in any machine before offering the same for sale in this state. Since October 1, 1913, when the new law went into effect, the inspectors have reported twenty-two types of machines sold in violation of this section. They were manufactured by seventeen different firms and handled by thirteen local dealers. All manufacturers and dealers were notified to discontinue the sale of the machines until they were properly safeguarded. Assurances were received from all of them that in the future they would comply with the law. Two other firms voluntarily wrote the department asking the provisions of the law and promising to comply with them.

The enactment of this provision in Minnesota has extended its benefits to other states. In one instance the manufacturer written to, replied that he would notify the jobbers handling his machines of the law and quote him prices on guards. He was informed this was insufficient compliance; that his machines must be shipped to the jobber with safeguards properly attached or not at all. He wrote in return that he had instructed his factory department to place the guards on all machines sent out of the factory and that no extra charge would be made for the guards. In concluding he wrote: "We thank you for impressing upon us the importance of this arrangement."

The bureau of factory inspection is deeply indebted to the employers and employes of the state for the splendid co-operation they have extended in the efforts to achieve results. Many letters from employers were received thanking the department for the recommendations made which encouraged the inspectors to increased endeavors in the improvement of conditions. The co-operation of employes in reporting bad conditions, in using safeguards furnished and in making suggestions to the inspectors was better than ever before. Some idea of this co-operation and also the effects of the new safety law can best be obtained by a report given to us, upon request for a statement of the amount spent in the last year for safeguarding, by one flour milling company. It must be remembered that their mills have been in operation since the first factory law was passed in 1893; that the mills have been inspected annually or oftener since then and that the firm has always carried out the recommendations of the inspectors. This report is for new guarding largely made necessary by the new safety law. They wrote as follows:

"To date, 206 end roll pulley guards of sheet iron on pipe frame have been applied at a cost of approximately \$1,000. In one mill alone 1,020 lineal feet of new oiling platforms have been built with 2,000 feet of toe-board and 4,000 feet of hand rails. These items, together with other sheet iron and wire guards and hollow set screws, have brought the costs of our work in safeguarding to over \$4,000 at the present time. In many cases re-arrangement of drives and machinery have been necessary to lessen danger and make guarding possible. We have 3,600 feet of electrically welded wire fabric for further belt and pulley guarding to be used mostly in structural steel frames."

Summary of Investigations.

The total number of inspections and investigations made by the bureaus of factory inspection and of women and children was 14,533 in the two years ending July 1, 1914. The regular inspections were made where they were thought to be most needed. The special investigations and inspec-

tions were ordinarily made because of complaints received. The inspections and investigations were as follows.

REGULAR INSPECTIONS.

	Number
Factory inspections (by bureau of factory inspection).....	8,027
Factory and mercantile inspections (by department of women and children).....	719
Railroad inspections (switch and frog blocking).....	918
Barber shop inspections	756
Creamery inspections (machinery inspections made on request by state dairy and food department)	588
Elevator inspections	575

SPECIAL INVESTIGATIONS.

Truancy	2,020
Child labor	262
Non-payment of wages	209
Hours of labor for women (law violations).....	124
Special investigations of factories and mercantile establishments.....	125
Applications for less than one hour for noon meal.....	65
Manual training schools	59
Delinquent, neglected and dependent children.....	44
State institutions	7
Applications to occupy rooms with less than 400 cubic feet of air space per employe	5
Docking and fining employes.....	22
Miscellaneous investigations	8
Total	14,533

Factory Inspection.

Of the 8,027 regular factory inspections made in the two years, 3,505 first and 48 second or reinspections were made in the year 1912-1913 and 4,417 first and 57 reinspections in the year 1913-1914. The inspection covered conditions in 4,147 buildings in 1913 and 5,332 buildings in 1914. The scope of the inspections included safety of machinery, tools, platforms, stairs and elevators, fire protection and egress, sanitation and ventilation.

Employes.

The number of employes shown by the tables below is the number whose conditions of employment were inspected and not the total number employed in the industries specified. The report of this department in 1910 attempted an industrial census, but the only purpose of the figures given in this report is to show the number of people whose conditions of employment were looked after and the type of industries in which they were employed. The figures for 1913-1914 are typical of those for 1912-1913 and are the only ones presented in the two tables.

Table 1 shows the number of firms, the number of buildings and of employes, a classification by age and sex, and the amount of regular night, Sunday and seven day work that was found. Table 2 presents the same information, but grouped by districts.

TABLE No. I—NUMBER OF ESTABLISHMENTS INSPECTED AND NUMBER OF EMPLOYES GROUPED ACCORDING TO INDUSTRY

(Does not include all factories in the state and is not a complete census)

Industrial Group	Number of Firms	Number of Buildings	Employees				Regular Sunday Workers	Regular Night Workers	Continuous 7-Day Workers	
			Total	Adults		Under 16 Yrs.				
				Male	Female	Male				Female
Manufacturing										
Food products.....	1,355	1,544	16,093	13,697	2,369	13	14	1,130	1,480	840
Woodworking.....	282	371	13,082	12,711	354	16	1	276	1,542	263
Iron and steel products..	833	956	12,417	11,903	502	10	2	423	269	398
Garments and other textiles.....	184	195	8,447	2,790	5,654	2	1	33	26	33
Printing and publishing.	457	458	7,012	4,927	2,052	31	2	11	182	11
Clay, glass and stone products.....	127	145	3,389	3,344	25	20	.....	92	80	91
Leather & rubber goods.	71	78	3,014	2,196	802	13	3	9	9	9
Paper and pulp products	23	32	1,806	1,326	466	4	10	71	260	71
Chemicals and allied products.....	37	48	887	595	291	1	.....	19	44	18
Fibre products.....	19	32	871	617	254	.....	.....	14	13	14
Unclassified.....	22	22	481	402	79	.....	.....	19	28	19
Total manufacturing .	3,410	3,881	67,499	54,508	12,848	110	33	2,097	3,933	1,762
Railroad work—shops, freight and round houses, coal docks and pump houses.	38	231	11,909	11,789	109	10	1	1,916	962	1,757
Personal service	179	184	3,316	971	2,326	6	13	10	14	6
Contracting.....	44	50	1,651	1,641	10	.....	.....	21	19	21
Public utilities.....	206	249	1,576	1,535	41	.....	.....	749	403	728
Mining — Shops and power houses.....	35	194	1,155	1,155	.....	.....	.....	273	202	273
Retail mercantile establishments.	227	228	2,067	1,441	623	2	1	103	20	102
Wholesale mercantile establishments.....	238	264	6,664	5,530	1,129	4	1	64	37	64
Miscellaneous.....	40	51	807	638	169	.....	.....	118	50	82
Grand totals.....	4,417	5,332	96,664	79,208	17,255	132	49	5,351	5,640	4,795

TABLE No. II—NUMBER OF ESTABLISHMENTS INSPECTED AND NUMBER OF EMPLOYES GROUPED ACCORDING TO DISTRICT

City or District	Number of Firms	Number of Buildings	Employees				Regular Sunday Workers	Regular Night Workers	Continuous 7-Day Workers	
			Total	Adults		Under 16 Yrs.				
				Male	Female	Male				Female
St. Paul.....	630	738	30,671	23,734	6,887	28	22	962	734	813
Minneapolis.....	656	826	26,643	20,661	5,938	33	11	1,409	1,574	1,112
Duluth.....	259	379	9,253	7,563	1,676	10	4	727	575	709
Balance of state.....	2,872	3,389	30,077	27,250	2,754	61	12	2,253	2,757	2,161
Totals.....	4,417	5,332	96,644	79,208	17,255	132	49	5,351	5,640	4,795

Safeguarding of Machinery.

Machinery was inspected in 3,305 buildings in 1913 and in 4,769 buildings in 1914. The inspectors were directed to give special attention to emery wheels and tools and the result was an increased number of orders covering these two items. The reports showed 94 buildings in 1913 and 132 buildings in 1914 that had no means of disconnecting the machinery or signalling the engineer to stop the machinery in case of accident or other emergency. Orders to 128 firms to correct this condition were issued. The condition of machinery as regards safety when the inspector entered the factory was reported as follows:

	1913.	Per Cent.	1914.	Per Cent.
Good	1,375	41.7	2,663	56
Fair	1,650	50.0	1,799	37.7
Bad	280	8.3	307	6.3
Total	3,305	100.0	4,769	100.0

Condition of Tools.

The inspection of tools commenced in October, 1913, under the new safety act. Such inspections were made in 3,753 buildings and the condition was: good, 3,144; fair, 517, and bad, 92. The carelessness of employes in handling "mushroomed" striking tools is well exemplified in the experience of one inspector. While walking along the street one day something struck his eye glass. The object fell at his feet and he saw it was a sharp piece of steel from a hammer. Some workmen were cutting rails in the street and he presumed it came from their tools. On investigation he found they were using tools that were badly "mushroomed." He advised the foreman to have them dressed immediately and not to use such tools in the future. This the foreman promised to attend to. The very next day the inspector found the same crew using, if anything, worse tools than the day before. He confiscated a hammer and took it to the officials of the company who thanked him for his action and issued strict orders to prevent similar carelessness in the future.

Stairs and Platforms.

In 1913 the inspectors reported 144 stairs without hand rails. In 1914 they reported 393. In 1914 when the new law required platforms to be guarded, they also reported 172 buildings in which the platforms and scaffolds were not properly guarded. These conditions were of course required to be corrected.

Vats, Pans, Bins and Open Pits.

A provision of the new safety act required that vats, pans, bins, open pits and other openings in the floor or surface of the ground be guarded with adequate hand rails and foot guards. In 2,239 out of 2,402 buildings in which such vats, etc., existed they were found guarded, but in the other 163 buildings they were not guarded and orders were issued to correct conditions at 304 danger points.

Elevators and Hoistways.

The inspection of elevators is of two types. The inspection of safety devices, hoisting cables and apparatus is in charge of the special elevator inspector. The factory inspectors report upon the guarding placed around

the elevator shaft and the use of signals to call the elevator from one floor to another. The department has promulgated a rule as an additional precaution in case of fire, and also to prevent the elevator being moved while another is using it, that some means of signalling be provided to be sounded before moving the elevator or to call the operator.

The factory inspectors reported in 1913 that 7 out of the 888 elevators inspected had no guards around the shaft and 248 had no signal device. In 1914 out of 1,192 elevators inspected, 24 had no guards and 195 had no means of signalling. Orders were immediately issued in all of the violations found.

The reports of the elevator inspector clearly demonstrate the need of state inspection of elevators. He found hoisting cables in use in which nearly 75 per cent of the strands were broken, safety devices wedged or tied back and made inoperative or entirely removed. Four elevators had to be condemned and their use prohibited until they were made safe.

In 1913 the elevator inspector inspected 55 passenger and 89 freight elevators and in 1914, 45 passenger and 386 freight elevators. Including the orders of the factory inspectors, 215 orders in 1913 and 509 orders in 1914 were issued to improve dangerous conditions around elevators.

SUMMARY.

	Number	
	1913.	1914.
Motive Power.		
Hand	25	211
Electric	71	138
Steam	12	52
Hydraulic	35	24
Air pressure	1	3
Gasoline engine .....	...	2
Kerosene engine .....	...	1
Total	144	431

CONDITION OF RUNNING GEAR AND APPARATUS.

	Good.	Fair.	Bad.	None.
Condition of running gear.....1913	143	...	1	...
.....1914	423	...	8	...
Condition of safety appliances.....1913	137	2	5	...
.....1914	363	...	58	10
Condition of hoisting machinery.....1913	142	1	1	...
.....1914	416	...	9	6
Condition of overhead timbers.....1913	143	1	...	...
.....1914	422	1	2	6
Condition of governor	73	...	...	71
.....1914	204	...	2	225
Condition of piston rods on hydraulic elevators	31	...	4	...
.....1914	24	...	...	...
Condition of gates and locks.....1913	133	5	6	...
.....1914	284	...	18	39
Condition of car or platform.....1913	137	2	5	...
.....1914	424	1	6	...
Condition of cables	118	5	16	5
.....1914	397	...	28	6

Fire Protection.

Seven hundred and eighty-eight of the 5,332 buildings inspected were over two stories high and under the provisions of the law are technically required to be provided with more than one way of egress and with an external fire escape. In 1913, 109 buildings, and 286 in 1914, were reported without fire escapes. In some instances the buildings were three stories in front but only two stories in the rear, thus obviating the need of an escape. Others are reported as strictly fireproof buildings. In many buildings the upper stories are used for storage purposes, no persons being

regularly employed above the second floor. In such instances, if the other means of escape were ample and no employees were found at work on the upper floors, it has not been the policy of the department to order escapes. But these buildings are closely watched and as soon as evidence is obtained that employees remain above the second floor for several hours at a time we insist upon the erection of an adequate escape.

Sixty-three buildings in 1913, and 115 in 1914, were reported without chemical fire extinguishers or stand pipes. There were 201 buildings reported with only one way of egress but many of them were little one-story shops. The aisles and passageways were reported obstructed in 79 buildings and 583 buildings did not have the fire escape exits designated. A new provision of the safety law requires that doors directly under a fire escape or balcony shall be of metal or metal lined and the windows of wire glass. There were 384 buildings reported in which the doors were not of metal and 421 had no wire glass in the windows. The more modern structures are usually properly equipped. As stated previously orders are issued whenever illegal conditions are found.

A special effort was made in the past two years to improve fire protection in grain elevators in the state. There are approximately 1,200 of these elevators. They are usually reported as two-story structures although their height is 40 or 50 feet to the cupola. The only means of reaching the cupola is a ladder and occasionally a narrow, steep stairway with abrupt turns. The structures are exceedingly inflammable and with the combustible refuse usually lying around are unusually susceptible to fire. Many of these buildings were equipped with fire extinguishers but these usually freeze during the coldest weather of the winter and are entirely useless. The inspectors issued many orders to provide barrels of salt water with pails in lieu of the chemical extinguishers. Instead of insisting on an iron stairway fire escape, the department has approved the use of knotted ropes, and has recommended a type of escape known as the "Save All" which is made of wire rope and works automatically. This escape has been demonstrated to be a practical success and can be purchased for a nominal amount. Its use, in lieu of an iron escape has also been approved in the smaller flour mills where men are not regularly employed on the third floor.

The inspectors ordered 199 new or additional fire escapes in the two years and altogether issued 836 orders to reduce the fire hazard and improve means of egress from buildings.

Sanitation and Hygiene.

Eleven hundred and thirty-three written orders, besides many verbal suggestions, were issued to improve the lighting, ventilation and sanitary conditions surrounding employees in the establishments inspected. The reports in 1913 showed the lighting in 12 establishments was only fair and in 2 bad. Ventilation was fair in 690 and bad in 10 buildings. Sanitation was bad in 252 buildings and only fair in 589 others.

In 1914 lighting was fair in 367 and bad in 2 buildings. Ventilation was fair in 454 and bad in one building. Seven overcrowded workrooms were reported in which the average amount of air space was less than 400 cubic feet of air space for each employee. Dust-creating machinery was used in 1,073 buildings and 414 of them had no exhaust system to carry off

dust and shavings. The sanitation was bad in 17 and fair in 1,149 buildings. Twenty-four inspections were open-air works such as quarries and engineering works.

A total of 10,424 toilets were inspected and the sanitary condition was reported as follows: Good, 8,676; fair, 1,568, and bad, 180. There were 226 firms that had no toilet facilities whatever and 232 firms failed to furnish separate toilets for the sexes. The law requires that toilets be furnished at the rate of at least one for each 25 persons or fraction thereof. Seventy-two firms failed to furnish adequate facilities. One firm was found in whose establishment the average was 67 persons to a toilet. In nine cases the average was over 40 and in 37 cases the average was between 30 and 40 persons.

Seats and Dressing Rooms for Women Employees.

Women were reported working in 1,449 buildings. The proprietors had furnished no seats in 45 instances. In 36 cases where a change of clothing was necessary the firms had failed to furnish adequate dressing rooms. In 65 buildings where women were employed the stairs were not properly screened on the sides and bottom.

First Aid Supplies for Injured.

The workmen's compensation law has made it obligatory on the employer to furnish free medical attention to injured employees. It would seem that prudence would suggest to all of them, especially in shops where machinery and sharp tools are used, to keep on hand some antiseptic washes, bandages, tourniquets and other necessary supplies to clean and bandage cuts and bruises. The inspectors have recommended these supplies to employers for several years, but the reports show that 2,305 firms have none whatever on hand. Several of these were employers of a large number of men. In one instance a saw mill employing over 500 men and located several miles from a town had no facilities whatever. It is doubtful if the department can order them, but, acting on the presumption that the compensation law might be construed to require them they were ordered in 57 establishments.

Bureau of Women and Children.

Prior to the reorganization of the Department of Labor and Industries, which was effected in August, 1913, the work of the women inspectors was of a desolatory character. They had no special duties other than to investigate complaints. In factory inspection work they went where they pleased without any plan or guidance. After the reorganization they were assigned regular duties. All laws affecting women and children are directly under the jurisdiction of that bureau. They attend to all complaints concerning violations of the law regulating hours of labor for women or of delinquency laws, and are expected to perform the greater part of the work of enforcing the child labor and truancy laws. In the inspection of factories and workshops they have been assigned to the following industries: Department and retail stores, millinery, dressmaking, restaurants, telegraph and telephone establishments, hairdressing and manicuring and ladies' bath rooms. Special assignments are made to all factories employing a large number of women. The women's bureau inspected 689 factories, workshops and other estab-

lishments in 13 cities and towns of the state. These establishments employed 12,223 women, 69 boys and 88 girls under 16 years of age. The number and kind of establishments in each city and the women and children employed in the several industries are shown in tables 3 and 4.

TABLE No. III—FACTORY AND MERCANTILE INSPECTION BY DEPARTMENT OF WOMEN AND CHILDREN GROUPED ACCORDING TO CITIES AND INDUSTRY

City	Industry and Number of Inspections								Totals
	Retail Mercantile Establishments	Wholesale Mercantile Establishments	Factories	Laundries and Cleaning Establishments	Millinery	Dressmaking	Telegraph, Telephone and Messenger Service	Hairdressing and Manicuring	
St. Paul.....	62	15	58	22	11	23	.....	1	192
Minneapolis.....	22	1	41	17	6	9	.....	.....	96
Duluth.....	63	18	57	5	19	15	10	7	194
Bemidji.....	11	.....	2	2	3	.....	.....	.....	18
Eveleth.....	8	.....	.....	2	1	.....	1	.....	12
Faribault.....	5	.....	8	2	3	.....	2	.....	20
Gilbert.....	3	.....	.....	.....	.....	.....	1	.....	4
Hibbing.....	9	.....	3	3	.....	.....	2	.....	17
Mankato.....	13	1	6	5	2	.....	2	.....	29
Owatonna.....	8	.....	1	1	2	.....	1	.....	13
Two Harbors.....	1	.....	.....	.....	.....	.....	.....	.....	1
Virginia.....	17	.....	1	8	2	.....	2	.....	30
Winona.....	24	.....	24	6	3	3	3	.....	63
Totals.....	246	35	201	73	52	50	24	8	*689

*A reinspection was made of 29 establishments and two were inspected a third time.

TABLE No. IV—WOMEN AND CHILDREN EMPLOYED IN ESTABLISHMENTS INSPECTED BY DEPARTMENT OF WOMEN AND CHILDREN

Industry	Employees			
	Total	Women	Boys	Girls
Retail mercantile establishments.....	2,786	2,761	15	10
Wholesale mercantile establishments.....	598	588	6	4
Factories.....	5,938	5,840	34	64
Laundries and cleaning establishments.....	1,416	1,405	5	6
Millinery.....	747	745	2	.....
Dressmaking.....	477	472	1	4
Telegraph, telephone and messenger service.....	403	397	6	.....
Hair dressing and manicuring.....	15	15	.....	.....
Totals.....	12,380	12,223	69	88

The women's investigation included sanitation, ventilation, lighting of workrooms, fire protection, hours of labor, and welfare work. A short resume of the conditions found as shown in their reports follows: Ten out of 148 buildings over two stories high had no external fire escapes and 13 had no fire extinguishers; 15 buildings had the aisles and exits leading to fire escapes and stairs obstructed; 47 buildings had only one means of egress and the doors opened inward in 512. Most of these latter were one-story buildings. There were 97 stairs without hand rails and 39 stairs that were not screened on the sides and bottom.

Lighting of Workrooms.—Good, 614; fair, 57; bad, 18. Artificial light was used during most of the day in 98.

Ventilation.—Good, 535; fair, 137; bad, 17. Artificial ventilation was furnished in 58 establishments. In ten workrooms the machinery was dust-creating and the air very dusty. Five workrooms had less than 400 cubic feet of air space for each person employed.

Sanitation.—Good, 624; fair, 51; bad, 14. Excessive moisture was reported in five places.

Sanitary condition of basement—Good, 294; fair, 31; bad, 14.

Heat in workrooms—Cool, 10; cold, 5; warm, 16; hot, 2; moderate, 656.

Sanitary condition of toilets—Good, 1,040; fair, 140; bad, 45.

Three firms had no toilet facilities and 132 had no separate toilets for the sexes. In 20 establishments the toilet facilities were inadequate averaging over 25 persons to a toilet. The largest average was 51 persons and in fourteen places the average was over 30 persons.

Fifteen firms did not furnish seats for women employes. Dressing rooms were needed in 343 establishments but were not furnished in 20 of them. Special lunch rooms were provided in 48 places, rest rooms in 38 places and four firms furnished hot coffee free for meals. First aid supplies for the injured were provided in 86 establishments. Women employes were found oiling machines in 6 establishments and cleaning machines in 10 establishments, a practice that is prohibited by the new safety law.

Railroad Inspection.

Railroad inspection by the department consists of enforcing the law requiring railroad companies to properly fill and block all switches, frogs and guard rails in the yards and terminals in the state, and to report to the railroad and warehouse commission any violation of the law requiring safe clearances between tracks and structures abutting on the right-of-way of railroads. The principal terminal points in the state are inspected by the regular railroad inspector. The yards in the smaller cities and villages are inspected by the factory inspectors on their factory inspection rounds.

There were 686 yards and terminals inspected in two years; 214 of them were inspected a second time and 18 terminals were given a third inspection. A summary of the condition of blocking found are shown in table V. The yards and terminals were operated by 60 railroad companies and private corporations. The "safety first" movement among the railroads has resulted in a splendid spirit of co-operation between the railroad companies and this department. The efforts of the companies to minimize the dangers from bad and missing foot blocks is demonstrated in the improved conditions shown in the third inspection. In the first inspection the bad and missing blocks were 6.67 per cent of the total blocks required. In the third inspection they represented only 3.36 per cent of the total.

The inspectors reported 34 cases of insufficient clearance to the department which were referred to the railroad and warehouse commission for action. In several instances they referred to permanent structures that were started before the law went into effect, but in most cases the conditions were immediately improved by the railroad companies. The nature of the obstructions were as follows: Buildings, stock chutes and platforms, 18; rubbish, ties, poles and building material, 5; insufficient clearance be-

tween tracks, 1; rails not bolted to ties, 1; and loading spouts in grain elevators extending over tracks, 9. A case in which a railroad company did not provide proper headlights was also reported to the railroad and warehouse commission, while the working methods of a train crew that were carrying flues on the running board of the engine was called to the attention of the officials of the road and the dangerous practice stopped.

TABLE V.—SHOWING CONDITION OF FOOT BLOCKING IN RAILROAD YARDS AND TERMINALS.

Inspection Period.	Terminals Inspected.	Switches.	Crossings.	Total Blocks Required.	Condition of Blocks		
					Good.	Bad.	Missing.
First inspection..	686	16,456	371	172,886	161,347	4,635	6,904
Second inspection.	214	7,912	137	82,397	76,676	2,437	3,284
Third inspection..	18	1,794	43	18,937	18,300	351	286
Totals	918	26,162	551	274,220	256,323	7,423	10,474

Barber Shop Inspections.

The law defining the duties of the department of labor requires the department to enforce laws prescribing the qualifications of persons in trades and crafts. The Minnesota Examining Board of Barbers requested this department to assist them in enforcing the laws relative to licensing barbers and barber shops. The request was for shops outside of the cities of St. Paul, Minneapolis and Duluth. The shops in the three cities were supposed to be inspected by the barber board and duplicate copies of their reports filed with the labor department, while the barber shops in all other cities and towns were inspected by the factory inspectors and duplicate copies of their reports turned over to the barbers' board. At the time of writing this report no returns have yet been made by any of the three members of the barber board to this department, but the labor department's inspectors have visited 756 barber shops. Of the 787 proprietors (some of the shops are owned by partners) 674 had licenses and 113 had no license. The shops employed 807 men, one woman and one boy under sixteen years of age. Of the employees 305 had licenses; 137 had no license; 304 were apprentices and 63 were employed as porters. Twelve had recently taken an examination but were not notified whether they had passed or not and 27 others have made application for license and received permits to work at the trade until the next examination would be held.

There were 676 shops located on the first floors of buildings, 4 on second floors and 76 in basements. The lighting of the workrooms was reported as bad in one building and fair in 37. Sanitation was fair in 81 and bad in 3 buildings. Ventilation was fair in 75 and bad in 1 building. The sanitary condition of toilets was fair in 141 instances and bad in 5, and 140 shops had no toilet facilities whatever. The hours of labor of the adult male employees were: Nine hours, 6; 10 hours, 172; 10.5 hours, 164; 11 hours, 289; 11.5 hours, 4; 12 hours, 163; 12.5 hours, 1; 13 hours, 7; and 14 hours, 1; total, 807. The one woman and one boy employed each worked ten hours.

Creamery Inspections.

Many of the creameries in Minnesota are located a long distance from the railroads. They are inspected regularly by the inspectors of the dairy and food department. The machinery they use is practically the same in all and these inspectors have familiarized themselves with the latest approved methods of safeguarding creamery machinery. It involves a con-

siderable expense to send a factory inspector to all these places, and the department of labor and industries therefore requested the dairy and food department to undertake the inspection of machinery in creameries in the state, except in the three large cities. The request was readily granted. Blanks for making reports are furnished the inspectors by this department.

The care exercised by the creamery inspectors has been commendable. They make recommendations to this department and written orders are mailed by this department to the owners of the creameries. A total of 1,049 orders have been issued in this manner. The total number of creameries inspected was 482, of which 103 were inspected a second and 3 a third time. The number of employes were men, 794; women, 12; and 5 boys under sixteen years of age; total, 811.

The machinery was reported bad in 302 buildings and fair in 139. No signalling or disconnecting devices were reported in 262 buildings. There were 82 stairs of which 19 had no hand rails. Of 15 elevators inspected 5 were not guarded and 4 had no signalling device. Lighting of workrooms was fair in 237 buildings and bad in 29. Ventilation was bad in 147 and fair in 284 buildings. Sanitation was bad in 20 buildings and fair in 187. In 135 creameries no toilet facilities were provided. In the others the sanitary condition of the toilets was: Good, 207; fair, 128 and bad, 12.

Manual Training Schools.

A number of accidents to pupils in manual training schools in the state suggested the idea of having the machinery in these schools inspected by the regular factory inspectors of the state. As a usual rule the instructors in the schools are very careful and some have given instructions in safety methods. A number of schools were visited, however, in which the most dangerous machines were unguarded. Fifty-nine schools were visited and 212 orders issued covering machinery, stairs, platforms, fire protection and sanitation.

Complaints Investigated.

Complaints of conditions covering 132 separate items were made in 125 establishments, usually by employes or their friends. The nature of the complaints was as follows: Lack of fire protection, 38; unguarded machinery, 24; unsanitary conditions, 24; insufficient toilets, 15; insufficient ventilation, 10; dangerous condition of elevator, 8; overcrowding of workrooms, 3; tools in bad condition, 2; dangerous condition of platforms and scaffolds, 2; safeguards removed by workmen, 2; dangerous condition of building, 1; overworking employes, 1; no seats for women employes, 1; and forbidding women employes to use toilets during working hours, 1; total, 132.

The complaints were well founded in 86 instances and not in 46: The use of one basement as a workroom was condemned owing to insanitary conditions and lack of proper egress in case of fire. In one case the doors of a room leading onto the fire escape were locked. Five applications by firms to occupy workrooms having less than 400 cubic feet of air space per individual employed were investigated and four of them granted. In 3 cases the rooms were well ventilated and the overcrowding was only temporary. In another the proprietor provided additional artificial ventila-

tion which changed the air in the room every four minutes. The 4 places averaged over 300 cubic feet of air space. The one firm whose application was refused had only 243 cubic feet of air space per employee. There were vacant rooms on the same floor of the building that could be had for a nominal rental, and he was required to acquire more room.

Hours of Labor.

The reports on hours of labor of working people were gathered with a twofold purpose. The male factory inspectors secured the information for statistical purposes and the women inspectors for the purpose of enforcing the hours of labor law for women. The hours worked in the establishments inspected by the bureau of factory inspection are shown in table VI, and present the daily working hours as reported by the employers. Owing to the fact that the figures do not include all the workers of the state no analysis of the table is made. It is interesting to know, however, that the great majority of the manufacturing establishments in the smaller cities and towns, who are not subject to the law regulating the hours of labor of women, are complying with its provisions. In many of these places the men work ten hours and the women employees only nine. Only 470 of the 2,754 women employed in those districts were working excess hours. Sixty-two children under sixteen years of age were found employed over 48 hours a week in violation of the law.

TABLE VI—REGULAR DAILY WORKING HOURS OF EMPLOYEES IN ESTABLISHMENTS INSPECTED IN 1914.

Daily Working Hours.	Total.	Employees		
		Men.	Women.	Children Under Sixteen.
Less than 8 hours.....	454	283	156	15
8 hours.....	15,745	13,017	2,621	107
8.25 hours.....	265	.....	265	.....
8.50 hours.....	2,314	1,121	1,192	1
8.75 hours.....	437	125	312	.....
9 hours.....	27,374	16,325	11,015	34
9.25 hours.....	65	22	43	.....
9.50 hours.....	2,314	1,429	885	.....
9.75 hours.....	135	78	57	.....
10 hours.....	43,821	43,099	699	23
10.25 hours.....	106	105	.....	1
10.33 hours.....	85	85	.....	.....
10.50 hours.....	192	190	2	.....
11 hours.....	827	822	5	.....
11.50 hours.....	3	3	.....	.....
12 hours.....	2,492	2,489	3	.....
13 hours.....	6	6	.....	.....
14 hours.....	8	8	.....	.....
18 hours.....	1	1	.....	.....
Totals	96,644	79,208	17,255	181

The Bureau of Women and Children inspected 689 establishments owned by 545 firms in cities of the first and second class and amenable to the hours of labor laws. The discussion of the conditions found in these establishments and in the smaller cities will be found in the subsequent part of this biennial entitled "Women and Children"

Child Labor and Truancy.

The number of children under 16 years of age, legally employed, increased in the school year ending July 1, 1914. This is the first time an increase is shown since 1907 when the superintendents of schools were first required to report to the commissioner of labor the number of employ-

ment certificates issued by them to children. The decrease grew larger each year for four years. In the fourth year it was 35.8 per cent. In the fifth year the decrease amounted to 11.9 per cent, but in the sixth year, ending in 1914, the number of certificates issued increased 269 (41.77 per cent) over the previous year.

The increase occurred in Minneapolis, St. Paul and Duluth. In Minneapolis the number increased 54 or 14.7 per cent; St. Paul had an increase of 168, or 96.5 per cent, and Duluth of 59, or 159.4 per cent. The increase in Duluth was caused by issuing certificates to 72 children because of their poverty on condition that they attend night school. The increase in Minneapolis and St. Paul cannot be accounted for unless it is due to more rigid enforcement of school attendance and child labor laws by the school authorities and members of this department which has caused children formerly employed illegally to get permits and be legally employed. The proportion of the certificates issued to children who have finished the grade schools increased from 52.5 per cent in 1912 to 60.4 per cent in 1914.

A comparison of the yearly reports of the school superintendents gives us the following data:

Year.	Certificates Issued.	Decrease from Previous Year.	Per Cent of Decrease from Previous Year.
1907-1908.....	1,827	.....	.....
1908-1909.....	1,707	120	6.6%
1909-1910.....	1,545	162	9.5%
1910-1911.....	1,140	405	26.2%
1911-1912.....	731	409	35.8%
1912-1913.....	644	87	11.9%
1913-1914.....	913	*269	*41.7%

*Increase.

REASONS ASCRIBED FOR GRANTING CERTIFICATES.

Reason.	1912-1913, Number.	Per Cent of Total.	1913-1914, Number.	Per Cent of Total.
Graduates of eighth grade.....	371	57.6%	552	60.4%
Poverty	149	23.1%	218	23.9%
Good of boy and girl.....	54	8.4%	60	6.6%
Age	50	7.8%	59	6.5%
Physical incapacity to study.....	10	1.5%	10	1.1%
Special .....	..	.....	11	1.2%
No good in school.....	5	.8%	..	.....
Reason not given.....	5	.8%	3	.3%
Totals	644	100.0%	913	100.0%

The reasons "for the good of the boy," "good of the girl" and "no good in school" came from Minneapolis. The cases of "physical incapacity to study" were children afflicted with deafness, weak eyes and tuberculosis. Their employment was strictly supervised to insure that it would not be as harmful as attendance at school. The eleven "special" certificates were issued in St. Paul. Two were defectives who were given special instruction. One was attending a business college. The others are not explained in the reports. Of the poverty cases 103 were issued in St. Paul on condition that the children attend the continuation school one-half of each day. These continuation schools have been discontinued for this year. Children who are within one or two months of being sixteen years at the beginning of the school semester are given certificates because of their age.

Grade Last Attended.	1912-1913.	1913-1914.
Second grade .....	...	1
Third grade	4	...
Fourth grade	8	15
Fifth grade	28	35
Sixth grade	79	93
Seventh grade	97	132
Eighth grade	37	56
Graduates of eighth grade.....	371	552
Grade not given	20	29
Total	644	913

TABLE VII—EMPLOYMENT CERTIFICATES ISSUED BY SUPERINTENDENTS OF SCHOOLS, GROUPED ACCORDING TO CITIES AND TOWNS.

City or Town.	1912-1913			1913-1914		
	Total.	Boys.	Girls.	Total.	Boys.	Girls.
Arlington .....	...	...	...	1	...	1
Balaton .....	...	...	...	3	2	1
Bemidji	2	2	...	2	2	...
Brainerd .....	...	...	...	7	7	...
Cloquet	3	3	...	4	4	...
Cottonwood .....	...	...	...	...	...	...
Duluth	37	22	15	96	65	31
Ely .....	...	...	...	1	1	...
Eveleth	9	6	3	1	...	1
Hancock .....	...	...	...	1	...	1
Kenyon	3	3	...	...	...	...
Minneapolis	367	235	132	421	268	153
Montrose	6	3	3	6	5	1
North St. Paul.....	6	6	...	...	...	...
Owatonna	3	3	...	10	3	7
Red Wing	2	...	2	...	...	...
Redwood .....	...	...	...	2	2	...
St. Paul	174	118	56	342	208	134
St. Peter .....	...	...	...	1	...	1
South St. Paul.....	2	...	2	1	...	1
South Stillwater	9	8	1	4	4	...
Stillwater	6	5	1	...	...	...
Tracy	1	...	1	1	...	1
Virginia .....	...	...	...	7	4	3
Wabasha	1	1	...	...	...	...
White Bear .....	...	...	...	1	...	1
Winona	13	4	9	...	...	...
Worthington .....	...	...	...	1	1	...
Totals	644	419	225	913	578	335

Investigations of child labor conditions were made on complaints and also on the initiative of the department in 262 establishments and involved 486 children. The investigations covered employment without certificates, night work, dangerous employments and excessive hours.

The findings of the inspectors were as follows: Children without certificates, 182; with certificates, 135; working only during vacation, 41; working only after school and Saturdays, 31; children complained of but found to be over 16 years of age, 56; employed after 7 p. m., 23; employed over 8 hours a day, 3; employed at prohibited occupations, 15; total, 486; prosecutions resulting from the investigations, 30.

The department assisted the school authorities to enforce the compulsory education law in 29 cities and towns in 1913 and 30 in 1914. In 1913 1,704 cases were investigated and 316 in 1914. The disposition of the cases was as follows:

In 1913—Returned to school, 1,660; over 16 years of age, 13; granted employment certificates, 9; excused on physician's certificate, 9; moved to other locality, 7; attending other school, 4; and graduates of eighth grade, 2; total, 1,704.

In 1914—Returned to school, 268; moved to other locality, 23; excused by school board, 11; excused on physician's certificate, 4; over 16 years of age, 10; total, 316.

Prosecutions.

The department instituted 123 prosecutions in the last two years to secure compliance with orders issued. The largest number were parents who neglected to send their children to school after being notified to do so. In most of these cases the parents were placed on probation and sentence suspended. A number of cases were dismissed, as the wrong person was charged with the violation, and several others for lack of proper evidence. A restaurant proprietor was fined \$100 for using abusive language to an inspector and ordering her from the premises. A private employment agent who collected fees and sent girls to establishments although she had no orders for help was also fined \$100. Two employers were fined \$50 for sending children with packages to houses of ill fame. The nature of the complaints and number of each were as follows:

Child labor without certificate	22
Child labor under fourteen years	4
Child labor after 7:00 p. m.	5
Child labor, sending to house of ill-fame.....	2
Child labor in unlawful exhibition	1
Children delinquent	3
Children playing pool	2
Children neglected and dependent	2
Child desertion and non-support	2
Allowing children to play pool.....	2
Truancy, parents	34
Truancy, child	1
Employing women over hours.....	32
Interference with inspector	2
Failure to post schedule of hours.....	1
Failure to provide safeguards.....	3
Failure to provide toilet.....	1
Employment bureau, no license.....	1
Employment bureau, no order for help.....	1
Doing electrical work without license.....	2
Total	123

The cases were disposed of as follows: Sentence suspended and defendant placed on probation, 41; dismissed, 24; fined \$100, 2; fined \$50, 2; fined \$25, 19; fined \$20, 1; fined \$15, 2; fined \$10, 11; fined \$5, 3; fined \$3, 2; fined \$1, 5; committed to home for girls at Sauk Center, 3; committed to state school at Owatonna, 2; not guilty, 4; cases pending, 2. Costs ranging from \$1.25 to \$5.70 were imposed in 13 cases, the total amount being \$48.35.

State Institutions.

Upon request of the board of control, the authorities at the state university, and the custodian of the new capitol, inspections were made of eight state institutions. The inspections related to safety of machinery, elevators and electrical apparatus and fire protection. The department does not have jurisdiction over state institutions in these matters but acted upon the request of those in control of the institutions. The recommendations made by the inspectors were as follows.

Morris School.

Guard gears of pump in heating plant; guard extractor in laundry; guard exposed saw in woodworking room.

Farm for Inebriates, Willmar.

Guard engine, fly wheel and dynamo in power plant; guard fly wheel of engine in boiler room; provide guard and ribbon feed on mangle in laundry; provide seats for women employed in laundry.

Rochester State Hospital.

Provide fire escape for detached wing east; provide fire escape for detached wing west; extend platforms of fire escape on rear center building to full width

of building, with stairs leading from one platform to the other and a drop stair to the ground from the lower platform; place guard rails around both elevator shafts in kitchen; extend protection on elevator car in store room to the height of six feet; provide new plunger and new valve for hydraulic elevator in store room; provide drain from the elevator pits in kitchen and store room.

Training School for Boys, Red Wing.

Guard fly wheel of engine in boiler room; guard top wheel of band saw; guard extractor in laundry; guard belt and pulley of extractor and shirt machine; place hand rail on stairs leading to boiler room.

New Capitol Building.

Provide six new five-eighths cables, one new controlling cable, and one new safety cable for governor on elevator No. 1; provide new safety cable for governor and 16 inches of new cable for controlling apparatus on elevator No. 2.

Second State Asylum, Hastings.

Provide drains to all pipe alleys to connect to sewer pipe; guard fly wheels on three engines; guard oil cup on side of engine; guard exposed gears on water purifier mixer on top and bottom; guard back gears on all wash machines in laundry; cut off protruding bolts on couplings; guard gears on collar ironer; provide new ridge boards for cottage No. 3; platforms should be built between the two dormitories one each side on both ends of buildings, with a stairway leading to the ground, making four fire escapes for main building.

School for Feeble-Minded, Faribault.

Main building—Provide two fire escapes for main building (recommend the tubular type of escape); also recommend a fire escape for north wing F. Skinner building—A fire escape should be placed at the back window on the third floor leading to the porch.

Hospital building—Recommend a fire escape from third floor.

Printing room—Guard open gears on side of printing presses; guard end of long shaft on presses; guard key on fly wheel of press.

Laundry—Provide covers for all extractors; guard belts and pulleys of extractors; guard back half of gears on all new washing machines; guard drive gears on body ironer; guard switch on body ironer; place guard around electric motor on large ironer; remove set screw and guard sprocket and chain on large ironer.

Hospital—Guard belt and pulley on pumps in elevator machine room.

Cooking kitchen—Provide all bread-cutting machines with new springs; remove protruding set screw on dough mixer; close up guards on dough mixers; guard belt and pulley on carrot cleaning machine and on potato peeling machine.

Cabinet shop—Guard belt and pulley on motor near door; guard circular saw.

Carpenter shop—Guard belt and pulley on large planer, on jointer back, on band saw, and on brush clipper; guard gears on large planer; guard circular saw; remove protruding set screw near clutch.

Engine room—Guard fly wheels on both electric engines.

Blacksmith shop—guard gears on drill press; remove protruding set screws; guard old coupling.

Machine shop—Guard gears on lathe; guard emery wheels; provide new tool rests for emery wheels; provide proper handles for all switch cut-offs.

Woman's dormitory, grade E—The toilet on second floor in north wing is insanitary and should be replaced with good sanitary plumbing.

University of Minnesota.

Protect bus bars on switchboard with wire-mesh enclosure; post danger warning notice; instruct employees to cut off current before going back of switchboard.

School of mines—Guard protruding set screws (three over automatic sampler, one on main shaft on compress floor and one on countershaft over shaper). Guard bevel gear on log washer; guard belt and pulley on jaw crusher and on coffee mill; guard two old couplings on countershaft over stamping machine; guard or remove 500-volt wires and switches from table in basement.

Carpenter shop—Guard circular saw; guard two emery wheels; guard gears on lathes; guard belt on countershaft of circular saw.

Hospital laundry—Guard extractor; guard gears on motor; repair floor near mangle.

Main engineering building—Guard gears on Universal testing machine; guard belt and pulley of dynamometer; guard three keys on fly wheels of engines; guard key on dynamometer; guard 24 set screws on road machine.

Physical laboratory building—Guard belt and pulley on liquid air plant; guard two emery wheels; guard set screws, one on countershaft over lathe, two over wood lathe and three over new lathe.

Electricity building—Guard emery wheels or provide safety collar for same, one on main boor and one in basement; guard set screws on countershafts over lathe and wood lathe; guard gears on lathe.

Mechanical engineering building—Dress all mushroom headed tools; guard two emery wheels; guard old coupling and set screw on new coupling; guard two emery wheels in foundry; guard pinion gears on back saw; guard top wheels of two band saws and fronts of saws; guard protruding set screws (46 in number and location described); guard circular saws; guard two emery wheels; guard gears on drill press; guard gears on lathes Nos. 3, 4, 5, 13, 14, 22, 23 and 24.

Heating plant—Provide new wire cables not less than one-half inch thick for counterweights on ash spouts under the automatic stokers.

Corn Shredder Inspections.

Inspections were made of 13 new models of cornshredders and huskers and 101 orders issued to guard the rolls, gears, chains, and feed boards before offering for sale in Minnesota.

ORDERS ISSUED BY BUREAU OF FACTORY INSPECTION AND BUREAU OF WOMEN AND CHILDREN.

TO SAFEGUARD MACHINERY.

Nature of Order.	Number	
	1913.	1914.
Nature of Order.	1913.	1914.
Guard belts, pulleys, shafting and cables.....	535	4,088
Guard protruding set screws, keys and bolts.....	381	3,041
Guard gears, sprockets and chains.....	274	1,964
Guard couplings and clutches.....	103	552
Guard around engines and fly wheels.....	114	386
Guard emery wheels.....	202	690
Reduce speed of emery wheels.....	13	12
Guard circular saws.....	78	299
Guard band saws.....	36	195
Guard extractors.....	47	101
Guard motors, dynamos and other electrical apparatus.....	33	88
Guard jointers.....	12	60
Guard machines (miscellaneous).....	66	281
Repair tools.....	27	234
Provide signalling, disconnecting and stopping devices.....	37	91
Repair, extend and replace guards.....	19	72
Provide rubber matting, gloves and protectors.....	12	5
Repair machines.....	8	2
Post danger warning notices.....	6	8
Unclassified.....	7	50
Totals.....	2,010	12,219

PLATFORMS, STAIRS AND PASSAGEWAYS.

Provide hand rails on stairs.....	86	339
Provide hand rails on platforms, balconies and around open pits and bins.....	34	270
Provide substantial platforms, ladders and scaffolds.....	13	31
Repair stairs, ladders, platforms and passageways.....	38	26
Screen sides and bottom of stairs.....	8	17
Remove obstructions from aisles and passageways.....	7	38
Repair floor and walls of building.....	.....	76
Provide better light in passageways, stairs and buildings.....	.....	24
Provide toe-boards on overhead platforms.....	.....	19
Totals.....	186	840

ELEVATORS AND HOISTWAYS.

Provide new cables (hoisting, counterweight and operating)....	46	66
Provide guards around elevator shaft.....	8	153
Repair and readjust safety devices.....	15	67
Provide and repair signal devices on elevator.....	97	102
Repair elevator machinery and cars.....	23	21
Repair doors, gates and locks.....	21	23
Guard elevator machinery.....	3	20
Guard sides and top of car.....	2	13
Provide beveled approaches at ceilings.....	.....	43
Provide new elevator (old elevator condemned).....	.....	1
Totals.....	215	509

FIRE PROTECTION.

Provide new and additional fire escapes.....	9	190
Designate fire escape exits.....	12	128
Provide fire extinguishers, hose, standpipes and water barrels...	24	164
Recharge fire extinguishers.....	27	82
Remove obstructions to fire escape exits.....	19	47
Repair and extend fire escapes and exits.....	4	33
Provide additional means of egress.....	10	44
Provide receptacles for waste and remove fire hazards.....	1	13
Provide wire glass in windows and doors opening onto and under fire escapes.....	.....	29
Totals.....	106	730

SANITATION AND HYGIENE.

Provide new or additional toilets.....	92	179
Clean and repair toilets.....	54	285
Improve sanitary condition of workroom.....	30	102
Whitewash and clean bakeries and kitchens.....	36	40
Provide better ventilation.....	20	19
Provide exhaust hoods, blowers and dust collectors.....	7	19
Provide dressing rooms.....	17	22
Designate toilets.....	12	11
Provide seats for women.....	6	13
Remove toilets from bakeries and kitchens.....	10	10
Provide supplies for first aid to injured.....	5	52
Provide cuspidors.....		55
Enclose toilets.....		35
Prevent overcrowding of workrooms.....		4
Discontinue use of basement workrooms.....		2
Totals.....	285	848

CORN SHREDDERS AND CORN HUSKERS.

Place guard on rolls.....	4	14
Guard chains, gears and pulleys.....	3	78
Extend shut-off lever and extend foot-board to safe distance.....		2
Totals.....	7	94

MISCELLANEOUS ORDERS.

Comply with child labor laws.....	22	326
Comply with laws regulating hours of work for women.....	120	476
Replace bad and missing blocks in switches, frogs and guard rails.....	85	317
Remove dangerous obstructions in railroad yards.....	6	13
Comply with barbers' license law.....		96
Totals.....	233	1,228

ORDERS ISSUED ON RECOMMENDATION OF CREAMERY INSPECTORS.

MACHINERY.

Guard belts, pulleys and shafting.....	323
Guard engines, pumps and fly wheels.....	276
Guard churns, separators and vats.....	182
Guard protruding set screws, keys and bolts.....	156
Guard exposed gears.....	42
Guard couplings and clutches.....	36
Guard motors and electrical apparatus.....	2
Extend and repair guards.....	2
Clean water glass on boiler.....	1
Total.....	1,020

STAIRS AND ELEVATORS.

Provide hand rails on stairs.....	15
Provide stairs.....	2
Provide guard around elevator shaft.....	3
Total.....	20

SANITATION AND HYGIENE.

Provide toilets.....	6
Improve sanitary conditions.....	2
Provide better ventilation.....	1
Total.....	9

ORDERS ISSUED TO SCHOOLS.

MACHINERY.

Guard belts, pulleys, shafting and cables.....	85
Guard engines and fly wheels.....	21
Guard circular saws.....	12
Guard band saws.....	7
Guard emery wheels.....	7
Guard machines, miscellaneous.....	16
Guard motors, dynamos and other electrical apparatus.....	10
Guard exposed gears.....	8
Guard couplings.....	8
Guard protruding set screws.....	3
Repair tools.....	1
Provide better light around machinery.....	1
Total.....	179

STAIRS AND PLATFORMS.

Provide hand rails on stairs and platforms.....	15
Provide stairs, ladders and platforms.....	8
Repairs stairs and floor	2
Total	25

FIRE PROTECTION.

Provide better means of egress.....	4
Provide fire extinguishers	2
Recharge fire extinguishers	1
Total	7

SANITATION.

Provide exhaust system for dust-creating machinery.....	1
Grand total	3,042 17,729

THE WAGES OF LABOR.

The workmen's compensation law has permitted the department to collect wage data whose accuracy can not be disputed. Section 24a of that act requires copies of all settlements and releases approved by the district courts to be filed with the commissioner of labor. The settlement petitions presented to the court must of necessity specify what the employee's wages were at the time of injury. This statement must be sworn to by both the employer and the employee. These settlements therefore constitute a source of information relative to wages which is 100 per cent perfect for all cases included. They do not furnish the wages of all wage earners, of course, but are representative of the rates of wages paid in the various establishments. The wages recorded in 3,918 of these accident settlements are herewith presented in two tables, the first of which shows the number of cases in each industry falling in each of a number of wage groups, and the second, the average wages in the various industries and occupations.

The summary at the right of table I shows that in 35 per cent of the whole number of cases the employees received from \$12 to \$15 per week, and in about 70 per cent of the cases they receive between \$10 and \$17.50 per week. More wage earners are paid from \$12.50 to \$15 per week than are found in any other wage group, and the second table shows an average wage for the 3,918 cases of \$15.14, and an average wage of \$14.50 in the 3,018 cases not included in a specified list of mechanical trades. The wages most commonly received by wage earners in Minnesota are shown by the settlements to be from \$12 to \$15. Those who earn less than \$12 are the old, the crippled and the otherwise deficient laborers, while those who earn above \$15 must have some special skill or intelligence.

TABLE 2—AVERAGE WEEKLY WAGES, BY INDUSTRIES AND OCCUPATIONS.

Industries.	No. of Cases	Wage	Occupations.	Number	Wage
Amusements	9	\$15.77	Bricklayer	3	\$33.00
Bakeries; foods and confectionery	42	14.60	Blacksmith	27	17.45
Brewing and bottling....	47	17.45	Bottlers	5	18.00
Clothing manufacturing..	21	10.63	Brewers	4	20.00
Contracting	488	17.60	Butchers, meat cutters, etc.	16	15.00
Chemicals	29	17.15	Cable splicer	5	19.50
Coal yards, transfer and storage	23	14.30	Conductor, street railway	13	16.80
Fiber manufacturing....	10	12.47	Carpenters and cabinet makers	132	19.75
Grain elevators and flour mills	119	15.27	Engineers, stationary....	55	20.80
Hotels	44	12.88	Electricians	11	20.50
Laundries	9	18.07	Firemen, stationary....	42	15.60
Leather and furs.....	26	11.25	Foremen and superintendents	67	23.00
Livery and draying.....	24	12.76	Glazier, stone.....	3	16.40
Lumbering	563	13.04	Iron workers	34	25.00
Meat packing	63	13.53	Linemen	22	17.79
Mercantile, retail.....	253	14.23	Linotype operator.....	2	29.50
Mercantile, wholesale....	60	12.75	Motorman, street car....	11	16.00
Metal manufacturing....	341	15.30	Millwright	12	20.20
Mining	998	16.01	Machinist	33	18.00
Municipality	24	15.59	Mason	7	29.34
Paper bag	12	11.32	Molder	11	18.43
Paper and pulp.....	42	13.60	Plumber	18	23.50
Printing	49	12.52	Painter	13	21.00
Public utilities.....	178	16.07	Patternmaker	3	22.65
Stone products.....	102	14.62	Plasterer	6	28.28
Woodworking	217	13.34	Salesmen	22	24.00
Unclassified	23	14.51	Stone cutters	8	19.70
All industries	3,918	15.14	Teamster	264	13.35
			All others	3,018	14.50

PART V.

REPORT ON WOMEN AND CHILDREN.

The administration of the laws relative to women and children is the peculiar work of the Bureau of Women and Children, and the report here presented represents a statement of the work and findings of this bureau.

CHILD LABOR.

Factories, mercantile establishments and theaters are the chief employers of children. The 283 violations of child protection laws discovered by the bureau during the past year consisted of the following offenses:

Employment of Children Without Labor Permits.—By factories, 34 violations; by laundries, 6 violations; by stores, 27; restaurants, 4; telegraph companies (as messengers) 4; theaters, 19, and on farms, 3; total, 91. In many of these and of the cases which follow the number of children illegally employed probably amounted to 10, 20 or 30 children, but it was impossible and unnecessary for the inspector to follow up the case of each individual child. Law enforcement and not persecution of employers is the purpose of the labor department.

Violation of Eight-Hour Law.—In factories, 30 cases; in laundries, 6; in stores, 27; in restaurants, 5; in messenger service, 3; in theaters, 7; and on farms, 1; total, 79. Employers whose attention has been called to the fact that they were violating this law have in most cases continued to employ the children, but under legal conditions.

At Work After 7 P. M.—in factories, 11 cases; in laundries, 2; in stores, 26; in restaurants, 5, as messengers, 4; in theaters, 14; total, 62.

Boys Under Eighteen Employed as Messengers After 9 P. M.—Three cases.

At Work in Forbidden Employments.—On dangerous machinery in factories, 3; in laundries, 3; and in a store, 1; total, 7. Illegally employed on the stage, 6 cases; and in bowling alleys, 1 case.

Twenty children under 10 years of age were found employed by theaters and two for exhibition purposes by stores, and nine children under 10 years of age were found illegally employed in street trades.

Three cases where children under 18 years of age were frequently bowling alleys. Total violations, 283. This total includes 24 violations that occurred previous to July 31, 1913.

Some of these violations were unquestionably deliberate, but a large percentage of them were due either to ignorance of the law or to negligence. Prosecutions were necessary in several cases where the custom of sending children late at night with packages was continued in spite of warnings by the inspectors.

Hours of Labor.—The hours of labor of child workers were ascertained by the inspectors in the course of their regular inspections, and were reported as follows: Less than 8 hours a day, 17 children; 8 hours, 82 children; over 8 to 9 hours, 42; and over 9 to 10 hours, 16; total, 157. Less than 48 hours per week, 26 children; 48 hours, 69; over 48 to 54 hours, 39; and over 54 to 60 hours, 23 children.

Investigation of Complaints.—Violations of the child labor law were alleged in complaints against 168 establishments employing a total of 362 children. These complaints were all investigated and it was found that only 143 of these children were working without a permit, but that 64 had illegal permits from the Minneapolis school authorities to work during a three-day sale, 52 were working over 8 hours per day and 29 working after 7 p. m. Only 74 of the entire 362 were employed in strict compliance with the law. In this connection it may be observed that many employers believe that they do not need to secure a permit for a child if the child has completed the eighth grade. This is a wrong conception of the law. A permit must be obtained for every child that is not 16 years of age.

Regulation of the street trades is badly needed. During the past few months nine little girls have been selling newspapers on the streets of St. Paul. The labor department can not do anything to stop children of tender age from selling on the streets unless the children are less than 10 years of age. The children are not employes but are merchants working for themselves. The bureau has taken 57 children below 10 years of age off the streets during the past two years; a boy of 6 years, 3 boys of 7 years, 19 boys of 8 years, and 34 boys of nine years of age.

Half Day Permits.—During the fall term of 1911 the school board of St. Paul established what they termed "continuation schools," so that permits could be granted to children to work in cases where the child's age and credits in school stood in the way of legal employment. No machinery was provided whereby the children who were supposed to be in school half of each day could be forced to be there. The children consequently worked all day in many cases, and the continuation school became a mere excuse for the granting of the permit to work. Most of these children were misfits in industry, drifting from one job to another, and to the majority of those who did go to school half of the day, work and school were as unrelated as if on separate planets, and the child seemed to be in a daze between the two.

The bureau's practice of following the child into the home gave us an opportunity to judge the needs of the family, and we repeatedly found cases where there was absolutely no need for the child to work. For instance, we questioned the age of a 13-year-old boy, whose father had filed an affidavit to the effect that the boy was 15, and found birth and baptismal records giving his age as 13. This father was in good health, was earning \$6 a day, and this 13-year-old boy was the only child dependant upon him for support. In other cases we found that the fathers preferred to live on the earnings of the child to going to work themselves.

In December, 1913, we therefore began an investigation of half-day permits in order to ascertain, if possible, whether any supervision was exercised by the school authorities, and to what extent the families of these children were in need, and the kind of work these children were employed at. We found no evidence of enforcement of attendance in school for one-half of the day. We found the majority employed at odd jobs and remaining in a place but a short time. Some worked a week and then loafed, and with but few exceptions they were employed in occupations for which they were not at all fitted and in which there was no future for them.

This must not be misunderstood and taken as a criticism of the St. Paul truant officer or of the superintendent of permits, but of the system. Both of these men have worked most faithfully and are in no way responsible for the system. The St. Paul school board have made provision for the salary of only one truant officer and the many parochial schools of the city complicate the truancy problem. It is a physical impossibility for one person to cover the city and attend to all truancy. It would have been a physical impossibility for the superintendent of permits to attend to all office duties demanded of him and at the same time make investigation as to the financial needs of the family. It is therefore only fair to explain that we were encouraged and given much assistance in our investigation by the superintendents of permits.

When these children were ordered out of their places of employment by this bureau they frequently loafed instead of returning to school, and unless the bureau persistently followed them up they became truants. Some provision should be made compelling school districts to enforce our compulsory education law. It is not fair to children to make it possible for them to acquire the habit of truancy. In some places the failure to realize the number of truant officers needed is so flagrant as in truth to lend encouragement to the development of habitual truancy. This bureau is not able to give repeated personal attention to each case. Our investigation has proved that continuation schools, if established without proper administrative machinery, are a farce, and we take pleasure in reporting that the present school authorities in St. Paul are most willing to accede to our recommendation that this system be abolished. When we began our investigation 57 half-day permits had been granted and applications for 12 more were under consideration. We recommended that the 12 applications be denied and that 47 of the permits be cancelled. Every one of these 69 cases investigated had made a strong plea for exemption from the compulsory education law on account of poverty but, as far as we could tell, only 12 families were found to be in actual need. In these cases assistance was secured through the aid of the associated charities:

We believe most firmly that no special permits should be issued for children to work unless an investigation has first been made as to the actual needs of the family. This would prevent the exploitation of children by selfish and inconsiderate parents. Nor should permits be issued for the employment of children without first ascertaining whether the job is a fit one for the child, and what its effect on his future earning power and life will be. If vocational training cannot be provided, vocational guidance to this extent can surely be attained.

The 10 cases out of the total of 69 in which the bureau approved of the half-day permits were as follows: Three children were learning a trade, 4 were nearly 16 years of age, 1 was incorrigible in school but highly thought of by his employer and was regular at school after becoming interested in his employment, and 2 held physician's certificates that they needed out-door exercise and had employment that met their need. Eight of these 10 were regular in their attendance at half-day school. The Bureau of Women and Children recommended the denial of 12 applications and the cancellation of 47 and the school authorities denied the 12 and cancelled 19 of the 47 recommended. Only 13 of the 38 whose permits were not

cancelled were regular in school, 14 were habitual truants and 7 never reported at school at all. Six of these 7 were parochial school pupils, but the habitual truants were all enrolled in the public schools.

It is impossible for the bureau to give personal attention to all cases of truancy where it is requested by the county superintendents to act, and in 180 cases involving 249 children, letters were written to the parents ordering them to place their children in school. Twenty cases of truancy, in addition to the child labor cases, were given personal attention. Fifteen of these children were returned to school, 3 were granted employment certificates, 1 moved to another city, and one was over 16 years of age.

Child Labor on the Stage.—There is no form of child labor concerning which there is a greater difference of opinion than the employment of children on the stage. Many people look at the case of the exceptionally well cared for child and fail to realize what effects are suffered by many children who are exploited in theater employments by lazy and selfish parents. Many see the theater as an opportunity for the development of hoped for talent, and utterly fail to appreciate that the child who is inclined to be bold, grows more so; and the child who is shy, in time overcomes her shyness. They likewise fail to note that the stage is interfering with the education of many children and by late hours is permanently impairing their health. The principals and teachers of the schools frequently appeal to us to stop the employment of this or that child in the theaters either because the child is tired and drowsy in school or because the child's head is so full of the stage that it gives no attention to its school work.

Minneapolis and St. Paul (1) are the only cities where children are employed to any extent; Minneapolis being far worse than St. Paul. The mayors of the two cities have co-operated with the bureau by refusing several children permits for the stage during the time school was in session, so that the number of times children appeared during the half year ending in June was materially decreased from the number during the half year ending in December. One girl appeared 58 times during the first semester and 20 times during the second semester. Another girl appeared 84 times the first semester and only 6 times the second semester. A boy appeared 60 times the first semester and only 8 times the second semester. The result of the increased stringency in granting theater permits was that a larger number of children passed in school.

The ages of the children who appeared in theater performances were as follows: Ten years, 8 children in 193 performances; 11 years, 14 children in 235 performances; 12 years, 27 children in 828 performances; 13 years, 24 children in 308 performances; 14 years, 20 children in 509 performances; and 15 years, 23 children in 189 performances. Eighty of these 116 children were local and 36 transient (traveling) children.

(1) When the child labor law was amended to require a permit before a child could appear on the stage letters were at once sent to every theater manager, mayor and village president in the state calling their attention to the law. Reports of permits granted have been sent in only from Duluth, St. Paul and Minneapolis. Appearances of children in other cities were therefore illegal.

INSPECTIONS.

The accompanying tables, 1 and 2, summarize the regular inspection work of the women inspectors in establishments employing women and children. The inspections are classified according to cities and industries.

The report should not be taken as any indication of the total number of establishments which employ women and children in the cities, as it is a report on work done and not an attempt at a census of women and child wage earners. A total of 281 mercantile establishments and 201 factories were inspected.

The second table shows that the factories inspected had 2,554 more women and children than the stores and from this point of view are first in importance. This is due in part to the fact that regular and complete inspections of many of the largest mercantile establishments were not made and more time put upon smaller firms. The larger establishments were inspected only for special conditions concerning which complaints had been made.

In the 689 establishments scheduled above, the following facts were reported by the inspectors relative to fire protection, safety, sanitation, hygiene and hours of labor.

Fire Protection.—Of the 689 firms inspected, 148 occupied floors above the second story; 10 buildings had no fire escapes; 13 buildings had no fire extinguishers; 15 buildings had aisles and exits obstructed; 47 buildings had only one means of egress but in most of these the employees were on the first floor.

Safety.—Ninety-seven stairways in 86 buildings were found without hand rails; 39 stairways in 34 buildings were not screened. Women were found cleaning machinery in 10 establishments and oiling machinery in 6 others.

Sanitation and Hygiene—Light and Air.—Five places were found that had less than 400 cubic feet of air space per employee. (The standard requirement.)

Lighting of workrooms—good, 614; fair, 57; bad, 18.

Ventilation of workrooms—good, 535; fair, 137; bad, 17. (1)

Sanitary condition of workrooms—good, 624; fair, 51; bad, 14.

Ninety-eight places used artificial light most of the time and 58 places furnished artificial ventilation.

Ten workrooms were reported cool, 5 cold, 16 warm, 2 hot and 5 workrooms were reported to have excessive moisture.

(1) Firm reported employing 18 persons in a room containing 243 cubic feet of air space per each employee; 8 gas lights were used at various times during the day and 2 gas stoves were used for pressing constantly. There was no artificial ventilation, the ceiling was low, and when the windows were open a draft was created. Was required to enlarge rooms to furnish 400 cubic feet per employee.

Basements.—The sanitary condition of 294 of the 339 basements inspected was reported good, of 31 fair and 14 bad. One basement was condemned as a workroom because of bad sanitary condition and lack of proper egress in case of fire.

Danger in Work.—In ten places the work was reported to be exceedingly dusty and in 149 the work was reported to cause undue physical strain. Only 86 firms have supplies on hand for first aid to the injured.

Toilets.—The number of toilets inspected in the 689 establishments was 1,225. The condition of 1,040 of these was good, fair 140, bad 45. Three firms had no toilet facilities at all and 132 firms had no separate toilets for women. (Including many small firms with very few employees.) Twenty

firms had an inadequate number of toilets, i. e., less than one for each 25 persons employed.

Seats.—Fifteen firms failed to furnish seats for women employes.

Dressing Rooms.—Three hundred twenty-three firms had dressing rooms but 20 firms did not furnish dressing rooms where needed.

Welfare Work.—Forty-eight firms had lunch rooms; 38 rest rooms, and 4 furnished hot coffee free at lunch time.

Five hundred and forty-five of the 689 firms whose hours of labor for women are tabulated in table 3 were in cities of the first and second class and amenable to the laws governing the hours of women. The legal limit of 54 hours a week for women applies only to manufacturing, mechanical, telephone and telegraph establishments in cities of the first and second class, and the legal limit of 58 hours a week for women applies only to mercantile establishments and restaurants in cities of the first and second class. One hundred and eighty-three of the firms had posted time schedules stating the working hours of the women employes, the other 362 had not. Office records of hours worked were kept in 556 establishments, but in 47 instances the inspectors found these records unreliable. Overtime was reported in 258 establishments, of which 215 worked overtime only on Saturdays. This Saturday overtime is regulated by a special provision in the law which prohibits the employment of females more than 11 hours on Saturday in mercantile establishments. This clause is meant for the protection of the women against the all too prevalent Saturday strain from early morning to late evening.

Attention is called to the fact that over one-half of the women scheduled in the table are grouped in the class which work "over 8½ to 9 hours" a day, and also that over one-half are grouped in the two classes which work "over 50 to 54 hours" a week. It seems fair to infer that the most common working hours of women in Minnesota are not more than 9 hours a day or 54 hours a week.

The number of establishments in cities of the first and second class found violating the laws regulating the hours of labor of women and children was as follows:

	Violating Hours for Women.	Violating Hours for Children.	Total.
Number of retail mercantile establishments.....	59	3	62
Number of wholesale mercantile establishments..	1	3	4
Number of factories	27	11	38
Number of laundries and cleaning establishments	6	6	12
Number of millinery shops	21	1	22
Number of dressmaking shops	3	3	6
Number of telegraph, telephone and messenger service	1	...	1
Totals	118	27	145

The retail mercantile establishments were within the limit of 58 hours a week, but were working over 11 hours on Saturdays.

It is ordinarily not difficult to tell whether or not a given situation is in violation of the labor laws of the state, but in the matter of seats the law is rather indefinite and difficult to enforce. The law states that suitable seats shall be provided for women and their use so permitted "as may be necessary for the preservation of health." We know that continuous standing is detrimental to health, but to prove that a given occupation is of such

a nature that a seat should be provided is not an easy task. We feel that it is almost futile to order seats where the discipline of the establishment prohibits sitting or other relaxation while on duty. But in spite of this weakness of the law orders were issued on thirteen firms to supply seats for female workers with successful results. Another law that is difficult to interpret is the one which requires proper ventilation and clean work rooms. The standard for cleanliness in a rag picking shop could not be the same as for a cracker factory. Much is of necessity left to the discretion of the inspector in enforcing such a law and our inspectors have succeeded in effecting material improvements in sanitary conditions.

It is the custom to refer dangerous conditions, such as absence of fire escapes or unguarded machinery, to the bureau of factory inspection. The few orders issued by the women relative to dangerous conditions referred to minor details, such as broken floors or railings. The commissioner of labor has authority to condemn the use of unsuitable basements for work-shops, and during the year two basements were condemned by the commissioner of labor upon request of the Bureau of Women and Children.

A word of explanation is due on account of the proportionately small number of orders issued previous to July 31, 1913. It was about this time that the system of inspections and orders was reorganized, for previous to this the improvements desired had been effected through suggestions given the employers. Frequently these were merely oral and no record could be made of them.

The law regulating the lunch hour for women is rather elastic as it provides that unless the commissioner of labor shall permit otherwise the noon lunch period shall be an hour. This has resulted in many requests for a shortened lunch period, and invariably the reasons given for desiring such a change are that the girls prefer a shortened noon hour to make possible an earlier closing time at night or a shorter day on Saturday. After investigation by this bureau 63 of 65 requests of this character were granted and 54 firms were allowed to shorten their noon hour to 30 minutes, 5 to 45 minutes, 2 to 50 minutes and one each to 40 and 48 minutes.

Complaints were received against 256 firms. Two hundred and thirty-one were of overtime work, 11 against lack of toilet facilities, 24 because of insanitary conditions, 11 on account of ventilation, 17 for non-payment of wages due, 7 dangerous stairways, and 12 miscellaneous causes. All of these complaints were investigated and 223 of them were found to be borne out by the facts. Some of the complaints were anonymous complaints from employes afraid to disclose their identity. Whenever a complaint was found to be well founded the bureau used its utmost efforts to remedy the condition complained of.

During the spring of 1914 a special investigation was made of 234 restaurants where women were employed. The investigation covered a sufficient number of both large and small establishments to be representative of conditions in Minneapolis, St. Paul, Duluth and other important towns in the state. The facts ascertained are summarized in Tables 5 and 6.

The first tables are based upon the classification of cities found in our law. The law of 1913 limiting the hours of employment of women applies only to cities of the first and second class, namely, St. Paul, Minneapolis, Duluth and Winona. Table No. 6 shows a striking contrast in the

items "hours of labor" between the cities of the first two and the third and fourth classes. By reference to the last column in the table it will be seen that 67 per cent of all employes in the 234 restaurants investigated were working Sundays. This does not mean they work Sundays in order to supply the needs of man and then by working shifts have some other day off during the week, for the table further shows that 67 per cent also work seven days a week. In other words, 67 per cent never have a day off. However, by way of explanation, it must be added that it is merely a coincidence that the same per cent of 67 applies to the number of females employed, and it must not be inferred that the Sunday and seven-day week workers are women only, for men are employed as well as women on Sunday. The large percentage of female employes merely reiterates what is common knowledge,—that the industry is to a great extent dependent upon women workers. It is a matter for congratulation that only 17 per cent of the employes are night workers. But even here there is room for improvement. Because the restaurant business is a twenty-four hour industry there is opportunity for the too ambitious employe to work in two establishments. Our attention was first called to this through an appeal to help a sick waitress. She reluctantly admitted that she had been working through the noon rush from 11 a. m. to 2 p. m. in one place and then was employed for the night from 10 p. m. to 7 a. m. in another of the down town restaurants. Many similar cases have since come to our attention, and the only way such abuses can be reached is by appealing to the common sense of the workers which, happily, is not always ineffective. Several girls give a preference for night work because it pays better and business is not so driving. They even explain that sometimes they can rest from 2 a. m. to 4 a. m. Where do they rest? Dining room girls have demonstrated by putting chairs together where they stretch out for a little relief, while girls employed in the kitchens invariably make a couch of the table. We are not advocating more suitable rest rooms for these girls but we do want to see the women going home at a reasonable time in the evening and men working on the all night watches.

There is need for improvement in the majority of the dressing rooms for the day workers. The busy times in this industry are early morning, noon and evening, and in accommodating themselves to an 8 or 9-hour day for the women employed, many restaurant managers have installed the system of "broken watches," i. e., a relief period between the working hours which are called a "watch" in restaurants. The girls cannot all go home from 2 to 5 p. m.; they do not always have errands to do and although waitresses may stay in the dining room; many naturally go to their dressing rooms. These are frequently no more than closets in the cellar with no ventilation, only artificial light and the only seats are narrow benches against the walls. It is astonishing how many of the girls employed in the kitchens are recent Polish immigrants. For the most part they are splendid workers, but their ideals are not high, and standing all day with their hands in the dishwater or cleaning vegetables satisfies them for the present. Neither do they complain of the dressing rooms, but higher standards here would soon mean better living conditions at home and a quicker adaptation to better American customs, and this we owe to our foreign born workers. It seems hardly necessary to add that the waitresses would also appreciate comfortable dressing rooms and give more loyal service.

The fact that 47 of these restaurants were without proper toilet accommodations is more surprising perhaps than the facts just cited relative to dressing rooms. The fact that one-third of the establishments did not have separate toilets for women may be somewhat misleading, unless one bears in mind that in several instances there were only one or two men and frequently one of these was the employer. Every toilet found communicating with kitchens was removed.

The contrast between the general sanitary conditions of the kitchen and dining rooms speaks for itself. Approximately one-fourth of the kitchens were dirty, while only one-twentieth of the dining rooms fell below the standard in cleanliness. This is one of the effects of public opinion, and if the customers could but see beyond the door to the kitchen the work of inspectors would be greatly reduced. About the most poorly ventilated kitchen inspected was one dependent for light and air upon a transom one foot by two and a half feet in dimensions, and this opened upon a narrow alley heaped high with garbage and refuse, while the innocent public was eating food prepared in this place, and girls were working all day in such unsanitary surroundings.

Liquor was sold and served by women in but 15 of the 234 restaurants inspected. This is by no means the total for the state, but in several states the serving of liquor by women is entirely forbidden by law. Each of these 15 restaurants serving liquor is also included in the 45 restaurants where tipping is the accepted custom,—that is, where it is admitted to be so by employer and employes. In addition to the restaurants so reported, about one-sixth of the entire number, there are undoubtedly many more where the waitresses make occasional tips, but it is the exception rather than the rule.

The law requires time schedules to be put up in the work rooms only in cities of the first and second class. These must state the definite time for beginning and stopping work, together with the total number of working hours per day and per week. In 139 restaurants the proprietors had failed to post such a notice. In 59 establishments, or about one-third of all inspected in cities of this classification, the inspector found it necessary to issue orders both for the improvement of sanitary conditions and the stricter compliance with the limit of the 58 working hours (1) a week for females, whereas the 11 orders issued against restaurants in cities of the third and fourth classes covered only sanitary conditions. Finally almost one-third of all the restaurants investigated failed to come up to the standards set for them by law.

(1) The legal limit of 58 hours per week in cities of the first and second class applies in mercantile establishments and restaurants; the legal limit of 54 hours per week applies in manufacturing, mechanical and telephone establishments.

Table 6 gives the more minutes details of the personal relations of the female employes to the work, whereas Table 5 only deals with more general conditions of the industry. Very naturally some of the girls were quite reluctant about giving the data on ages, residence, etc., and in such cases the inspectors did not urge a reply. The table therefore is a summary of the replies given willingly and only those which were reliable are included. In the items on "hours of labor," the table is more complete and accurate, as the girls and superintendents of the same establishment

corroborated each other's statements. It might be added that answers about hours were usually given without hesitation, and wherever a girl's record on her hours of work was incomplete, the entire record was discarded, but on the other hand if the record was complete in its information on hours and very meager in other details, the record was included in this summary.

The ages of the women engaged in this industry are similar to those of the masses of wage earning women in all industries. A very large majority, 374, were reported between the ages of 18 and 25 years; only 161 over 25 years, many of whom were cooks, and under 18 years the number of 28 is almost negligible. The ages of the women workers would naturally lead one to expect that as many as 454 of the entire number reporting on their marital state would be single. Only 95 were reported married, many of whom work only three or four hours a day through the noon rush, earning in this way \$3 to \$4 a week to add to the family income. Nineteen widows were reported.

As a result of recent agitation on wages, there seems to be an impression that low wages are justifiable on the ground that so many girls live at home. Whether or not this is a correct economic theory cannot be discussed here, but the facts brought out by this investigation are interesting in that 396 of the 615 reporting on this point, or 64 per cent, were renting rooms and did not live at home. Ninety of the remaining 219 lived with the family of the proprietor as domestics and had of course correspondingly low wages. This leaves only 21 per cent of the girls who actually lived at home or with relatives, and includes many married women who worked the short noon watch and some married women and widows who were supporting families. It therefore seems fair to draw the inference that the restaurant business depends for its employees upon women adrift.

From the employee's standpoint there are three classes of labor, and they draw the social distinctions very carefully between the waitresses and the workers in the kitchen, and also among the kitchen workers themselves, as between the cooks and dishwashers or other kitchen helpers. The payroll also indicates a distinction, but not in the same order; the most skillful class, the cooks, receive most, then the waitresses and the kitchen girls, other than the cooks, least.

Wages of restaurant employees compare favorably with other industries, for it must be borne in mind that in addition to the compensation in dollars and cents, two or three meals are given free of charge, and generally the employees have the same choice of food as the guests. However, employees on short watches would necessarily be obliged to provide for at least one meal a day for themselves, and the six day workers would be obliged to provide all their own meals for the seventh day. The table on wage scales shows that of the 1191 women who reported on wages 38 per cent were receiving from \$7 to \$8 a week and the average weekly wage for dishwashers is approximately \$6 to \$7, and for waitresses \$7 to \$8, (exclusive of night workers and head waitresses who receive \$8 and more without exceptions). Many restaurants hire men as cooks, but where competent women fill these positions in well organized establishments they command \$12 to \$18 a week, while in the smaller lunch rooms women who do the cooking frequently receive only \$8 or even less. The table shows a surprising number of employees who earn \$5 or less a week. This is partly

due to cases of underpaid service, but more especially to the large number of women who work less than eight hours a day, and naturally do not expect full pay for half time, and also to those who have homes with the proprietors and so are not obliged to pay room rent out of their wages.

The same explanation (short noon watches) accounts for the large number working less than 50 hours a week and less than eight hours a day. While 577 of the female employes were working reasonable hours—from 50 to 58 a week—287 reported working more than the legal limit (in cities of the first and second class) of 58 hours a week. We would call attention especially to the amount of overtime per week for each overtime worker in the three classes of labor in cities of the first and second classes, and those of the third and fourth classes. For waitresses, 10 hours as compared with 14 hours; for cooks, 9 hours as compared with 17 hours; for kitchen girls, 12 hours as compared with 18 hours. This leads us to ask the question why the same good reasons for limiting the hours of the girl working in a restaurant kitchen in St. Paul should not apply to the girl working 12 hours a day in South St. Paul? Why should not the hour law for women apply consistently throughout the state, so that no employer could keep a girl on duty 90 hours a week, as was found in one establishment? It is probably a result of this hour law applying to our four largest cities that the table for these cities does not show as high a rate of hours of employment. Now, when a girl in a restaurant in these cities is found employed 9, 10 and 12 hours, or only one hour overtime a week, legal pressure can be brought to bear to remedy the condition. But outside of these four cities, if a girl is employed 14, 17 or 18 hours more than the 58 hours a week, nothing can be done to change it. Dishwashers frequently worked 77 hours a week.

The aim of working people is for an eight-hour day and the table would seem to indicate that this ideal has been reached by 356 of the women reporting, but most of them are working a seven-day week, so that their attainment is not as great as it at first glance seemed. In fact if a seven-day week worker is employed over $8\frac{1}{4}$ hours a day, there is danger of overtime for the week. A common arrangement of hours is $8\frac{1}{2}$ hours for six days and 7 hours for the seventh day, thus making a working week of exactly 58 hours. This brings us to the subject of the custom of having one working day quite long and the following one comparatively short, and so alternating through the week. Three hundred and nine girls were working in this manner. For instance, a $9\frac{1}{2}$ -hour day (perhaps from 5:30 a. m. to 2:30 p. m.) is followed by a 6-hour day (perhaps from 7 a. m. to 1 p. m.) making a total of 56 hours a week. A not uncommon arrangement of days is an 11-hour day followed by an 8-hour day, but such shifts total 68 hours a week, amounting to 10 hours of overtime. There is more chance of miscalculation of hours in these alternating long and short work days and broken watches. This should receive careful attention from employers, employes and inspectors. The custom of broken watches is so generally in vogue, as seen from the 540 so scheduled in the table, that it deserves special emphasis. A girl may come on duty at 7 a. m. and work until 2 p. m. and then have three hours for herself during the afternoon, returning at 5 p. m., for work until 7 p. m., making a 9-hour day. Or a girl may come on at 11 a. m. to work until 2 p. m., returning at 4 p. m. to work until 9 p. m.,

making an 8-hour day. The time off occasionally comes in the forenoon from 10 a. m. to 11 a. m., or in all night shifts it is not infrequently from 2 a. m. to 4 p. m. Sometimes a girl works three watches a day broken by two relief periods. This system, although it gives a splendid opportunity for rest and change during the working day, makes it quite imperative for the restaurant worker to room in the downtown district near her place of employment if she is to make personal use of these hours. The relief periods are too short to go far to a room, and it is too expensive to pay 20 cents car fare a day, so the worker must live where room rents are higher. When the restaurant business is so organized that each girl can work a straight 8-hour watch without interruption, and only six days a week, one of the ideals which the waitresses' union is striving for, will be attained, although this still seems a distant goal. The local of the waitresses' union in Minneapolis is at present the strongest labor union among the women in the city, having a membership of 109 girls employed by 21 different establishments, an average of 5 union members each. The girls who have been subjected to exceedingly long hours in this line of work in the past are almost unanimous in reporting improved working conditions in the restaurants and this is an encouraging sign.

WELFARE WORK.

The "welfare work" of the Bureau of Women and Children consists of efforts to improve the conditions of life of children and women who stand in need of personal guidance and assistance. Efforts are made to improve the home conditions of children, to secure assistance for families in need, pensions for mothers entitled to them under the mothers' pension law, and other similar personal help. In this connection we would suggest that the pension law make provision for the assistance of deserted mothers and for children up to the age of 16 years, at which time the laws of our state no longer compel his attendance at school. Private citizens, as well as county officials, have asked our aid in cases of delinquency, dependency and neglect, and we regret exceedingly that we have not always been able to respond. Whenever possible cases are referred to local workers but few country communities have local workers of this kind, and it is not often possible to persuade a resident to assume responsibility in such a matter and take charge of it. Some of these cases have taken much time for a thorough investigation. The following summary furnishes an account of this work:

Dependent and Neglected Children Cases.

Number of families investigated, 16; number of children included, 35.

No. 1.—Family of five children, aged 15, 13, 11, 7 and 5 years. Mother insane and work kept father out of city. The assistance of neighbors was solicited, but there was no cause for breaking up family. Clothing and Christmas box was sent; oldest daughter, 15 years of age, was encouraged to care for the family of five children.

No. 2.—Family of three children, aged 15, 14 and 11 years. Mother crippled with rheumatism, father dead. The mortgage on the home was taken care of and oldest boy found a position for Saturdays and after school. It was not possible to secure full allotment of mother's pension. Clothing for all and medical aid for the mother was secured.

No. 3.—Two children, aged 14 and 11 years. Mother a drunkard and bigamist, whereabouts of father unknown. The boy was placed in the

boys' detention home. Because of the unusual character of the case and pleadings of the girl, the investigator assumed guardianship.

No. 4.—One child, aged 14. Because this girl told of depravity at home (drinking and immoral conduct on the part of the mother) she was abused by her mother and so came to live with relatives, who professed to be interested in her. Upon the death of the aunt, the uncle tried to have the girl committed to Sauk Center, saying she was untruthful and dishonest, etc. Neighbors contradicted this and told of ill-treatment of the child by these relatives. Investigator has assumed guardianship and has found her to be quite an unusual child. She is now living with people who are good to her.

No. 5.—Two children, aged 14 and 11 years. Mother dead and work kept father out of town, but when at home reported to be drunk most of the time. The older sisters, reported to be working in St. Paul, were appealed to. The father had driven them from home, but one returned to care for these children after the father had been compelled to make provision for their support. Clothing and Christmas box was sent.

No. 6.—Two children, aged 11 and 8 years. Mother dead and father had deserted them. A home was found for the children with a friend of the mother.

No. 7.—Four children, aged 10, 8, 6 and 3 years. Mother and father very slovenly and lazy. Children found sleeping in basement on wet mattress. Made to understand that unless the children were better cared for, investigator would petition court to have them taken away.

No. 8.—Five children, aged 14, 9, 4, 2 and 6 months. Mother insane and father a drunkard. Three of the children committed to the state school; two placed by the court in a private family. This mother has spent most of her married life in the hospital for insane.

No. 9.—One child, aged 10. Mother and father both drink. Guardian has been appointed for this girl.

No. 10.—Two children, aged 10 and 12. Mother slovenly; father a wandering musician. Placed on probation.

No. 11.—Three children, aged 7, 6 and 3 months. The mother is a degenerate and not married. The fathers are unknown. Two children are dead. Relatives have been appealed to and assistance given.

No. 12.—One child aged 14. Parents poor, could not keep boy in school. A good home was found on farm where boy could be regular in school.

No. 13.—One child 10 year old. Mother poor, father dead. The mother, a working housekeeper, was allowed to keep one child with her; a relative kept one, but help for the third child was necessary. A good home found on a farm.

No. 14.—One child, 5 months old, placed in school for feeble-minded with mother.

No. 15.—One child two months old. Placed in school for feeble-minded with mother.

No. 16.—One child, 5 months old, illegitimate. Helped mother find home where child could be boarded.

The same situation exists in cases of neglect as in those of delinquency, and the investigator is not able to keep in close touch with the case, excepting where local volunteer help is attainable. Each county should have at least one woman worker to make investigation of mothers' pension cases, cases of neglected children, deserting parents, etc. Where aid is given the expenditure of money should be looked into, and mothers receiving county aid be taught how to buy and how to prepare nourishing food in place of being permitted to buy crackers and canned goods, which is frequently found to be the case.

DELINQUENCY.

Twenty-one cases of reported delinquency have been investigated, eighteen of girls and three of boys. The fact that we have been appealed to in eighteen cases concerning girls and only three cases concerning boys may

be due to the fact that most communities take action in a case of female delinquency much more quickly than in a case of male delinquency, or to the fact that most officers of the law are men and not so able to make investigation concerning the delinquent girl?

Nine girls were committed to the Minnesota home school for girls. One was only 13 years of age, two 14 years, three 15 years and three 16. One 16 and one 20-year-old girl were committed to the school for the feeble-minded; a 17-year-old girl to the Florence Crittenden home; 6 girls from 13 to 16 years of age were placed on probation, and in one case no legal commitment could be made. Six of these girls, aged 14, 15, 16 (two cases), 17 and 20 years, are now mothers.

Two of the boys concerned were 12-year-old truants, both unfortunate in their home surroundings. The parents of both were shiftless and the boys were permitted to go about as they chose. Both were placed in school and the parents brought into court and an attempt made to improve home conditions. Another boy, 18 years old, was necessarily sent to St. Cloud to the reformatory. He has made a good record for himself, and has increased his earning capacity by a business course.

HELP FOR SICK.

A girl, 24 years of age, crippled by infantile paralysis and deserted by her parents, had been left a charge on a county in northern Minnesota. For six years this girl had dragged herself around on her hands and knees. She had been hired out by the township for her keep and sometimes had been placed in very undesirable homes. The case was reported to us with the request that we do something for her. Through the assistance of the board of control she was placed in the hospital for crippled children, and it was found that she would be able to walk in time. In another case a girl's hospital bill was taken care of and she was returned to her home in the country.

COLLECTION OF WAGES.

Wage collection investigations are ordinarily turned over to the associated charities but where a case seemed to involve docking and fining, the bureau has made an investigation. The following is a summary of four of the thirty cases investigated:

No. 1.—An employe of a garment factory, who was discharged in the middle of the week, requested the bureau to collect her wages for the whole week. Investigation revealed that she was employed by the hour and worked irregularly. She agreed finally to accept the wages due her on that basis amounting to \$6.75, which was paid her.

No. 2.—An employe of a department store was promised a wage of \$10 a week during the holidays, with the understanding that it was to be cut to \$7 a week after Christmas. She was also to be paid a premium on sales of old stock. After Christmas the manager continued to pay her the \$10 for several weeks before he remembered the arrangement made with the girl. He then deducted \$4.11 premium money from her last week's wages. She requested the department to assist her in collecting the amount. Investigators induced the firm to pay her the amount.

No. 3.—A girl was employed sewing caps for an advertising novelty house at 15 cents per hundred. She worked two days, a total of 17 hours and 49 minutes, and made 200 caps each day. She quit at the end of the second day, as she did not like the work. She claimed she was guaranteed \$1 a day. To the investigator the firm explained that they did not guaran-

tee \$6 a week unless the employe worked a full week. This firm has a compulsory benevolent association for which they deducted 15 cents dues. The employers figure that it takes five minutes from the time the employe punches the time clock until they reach the place of employment, at the starting hour, and three minutes to reach the time clock after the whistle blows for quitting. If the employe punches the time clock within the five or three minutes periods, he is fined 10 cents. This fine is put into a picnic fund, and once a year the papers announce that the firm is giving their employes a picnic. This girl was five minutes late once and fined 10 cents. You will note that this five minutes was valued at 10 cents by the firm, although the firm was paying only 4 cents an hour. Another 25 cents was deducted for a locker. The locker money was refunded her in cash after she quit, leaving the balance of her wages 10 cents, which was paid by check.

No. 4.—A girl reported that she had been compelled to quit work one day and go home because of a swelling in the face. When she went back to collect her money she was paid 90 cents for one week's work. Investigator found that statement made by the girl was true. The firm excused themselves by explaining that she was sewing sleeves, and that the amount due her could not be credited to her until the sleeves had been sewed in the coat and the coat finished. The girl had raised the question as to the 90 cents being the amount due her at the time of calling for her pay and had been most emphatically informed that that was all she had coming.

CO-OPERATION OF WOMEN WORKERS.

Ever since the establishment of the Bureau of Women and Children, a lack of co-operation on the part of women wage earners has been felt. Efforts have been made to discover the reason. In some case the bureau has found that fear of losing their positions and ignorance of the bureau's purpose have been the two chief reasons. The amount of service which the bureau can give the working woman depends upon what it can do to help them help themselves. It must make the inefficient realize that they must make every effort to increase their efficiency and give value received, and make the employer realize that it is his duty to assist the employe to improve in efficiency and to give value received for the employe's work. Heads of firms should make an effort to learn at first hand more of what goes on in their respective establishments. This could be done by encouraging the ordinary employes to report their grievances to the head of the firm and preventing resultant discrimination against such employes by foremen and superintendents, or by employing a good woman to ascertain conditions and listen to complaints. Some firms advertise that they employ a woman as social service worker, and keep her busy doing clerical work, or allow her to report corrections needed, and then pay no attention to her recommendations. Such "social service" workers are employed for their advertising value and not out of a sincere desire to do justice to the employes. Probably the best kind of a social service worker in any establishment is the one who has been chosen from among the other workers of the establishment and is accepted by the girls at once as one of them. They do not stand in awe of her and they knew that she has worked along side of them and so cannot be imposed upon by imaginary or malicious griefs.

The secretary of the Minimum Wage Commission and the Bureau of Women and Children secured permission from the governor to have the capitol building open for working women on one Sunday afternoon during each of the months of January, February, March, April and May, and fur-

nished a good program in the house of representatives, including music and speakers. The governor and other prominent men appeared at these gatherings and the several hundred girls who attended became more conversant with the work of the state in their behalf. During the same months one evening meeting each month was held in Minneapolis and St. Paul and an opportunity given to the wage-earning women to learn what labor laws apply to them, and to the state bureau an opportunity to learn from them what their special needs are. One Sunday meeting was also held in Duluth and one in Winona, and one evening meeting in Duluth, and these meetings were attended by over 200 girls.

TABLE A—SUMMARY OF CHILD LABOR PROSECUTIONS

Establishments	Age of Child	Complaint	Disposition	Penalty
St. Paul Prosecutions—				
Mercantile.....	12	After 7 p. m.	Not guilty.....	\$25.00
Mercantile.....	12	After 7 p. m.	Guilty.....	\$50.00
Shoe shining.....	14	After 7 p. m.	Guilty.....	\$25.00
Mercantile.....	13	After 7 p. m.	Guilty.....	\$25.00
Mercantile.....	13	Without a permit.....	Guilty.....	\$25.00
Mercantile.....	15	After 7 p. m.	Guilty.....	\$25.00 each
2 Farm labor.....	8 and 9	Without a permit.....	Guilty.....	
Mercantile.....	14	Without a permit.....	Not guilty.....	
Mercantile.....	13	Without a permit.....	Withdrawn.....	
Mercantile.....	13	Without a permit.....	Case dismissed.....	
Minneapolis Prosecutions—				
Manufacturing.....	15	Over eight hours a day.....	Guilty.....	\$25.00
Theatre.....	12	Usheing after 7 p. m.	Dismissed.....	
Messenger company.....	13	After 9 p. m.	Guilty.....	\$53.00
Manufacturing.....	14	After 7 p. m.	Guilty.....	\$25.00 (\$10 paid, \$15 remitted)
Duluth Prosecutions—				
Theatre.....	14	Forbidden employm't after 7 p. m.	Not guilty.....	
Theatre.....	5	Forbidden employm't after 7 p. m.	Guilty.....	\$50.00 suspended sentence.
Winona Prosecutions—				
Manufacturing.....	15	Over eight hours a day.....	Guilty.....	\$25.00

*New complaint sworn to in this case, as company had *lessed department in which offense occurred*.

†Employer had contract with State Fair Board and was compelled to keep it, altho he protested against violating laws of the state.

‡Father of child perjured himself in reference to child's age, giving court opportunity to dismiss case in spite of fact that prosecuting inspector had sworn statements of birth and baptismal records.

\$Penalty of \$3.00 unwarranted, as minimum is \$25.00. Wages of boy for 11 days had amounted to \$2.90. Parent thankful for investigation.

*Actual hours of work 5:45 p. m. to 2 a. m.

TABLE B—PROSECUTIONS ON EMPLOYMENT OF WOMEN

Establishment	Complaint	Disposition	Penalty
St. Paul Prosecutions—			
Restaurant	Manager insulting to inspector.	Guilty.	\$100.00
Mercantile.	Overtime.	Guilty.	\$10.00
Manufacturing.	Overtime.	Guilty.	\$50.00 suspended sentence.
*Manufacturing.	Overtime.	Guilty.	\$25.00 suspended sentence.
*Mercantile.	Overtime.	Guilty.	\$25.00
Minneapolis Prosecutions—			
Restaurant	Overtime.	Guilty.	\$10.00
Restaurant	Overtime.	Guilty.	\$10.00
Restaurant	Overtime.	Guilty.	\$10.00
Restaurant	Overtime.	Guilty.	\$10.00
Restaurant	Not posting time schedule.	Guilty.	\$3.00
Restaurant	Overtime.	Guilty.	\$10.00
Restaurant	Overtime.	Guilty.	\$10.00
Restaurant	Overtime.	Guilty.	\$5.00
+ Restaurant	Overtime.	Guilty.	\$10.00
+ Restaurant	Overtime.	Guilty.	Forty-five days suspended sentence.
Restaurant	Overtime.	Guilty.	\$10.00
Restaurant	Overtime.	Guilty.	\$10.00
Restaurant	Refusing admittance to inspector.	Guilty.	\$10.00
Duluth Prosecutions—			
Restaurant	Overtime.	Guilty.	\$10.00 and costs
Restaurant	Overtime.	Guilty.	\$10.00 and costs
Winona Prosecutions—			
Manufacturing.	Overtime.	Guilty.	\$25.00

*Same firm prosecuted same day.

†Same firm second sentence three months later.

TABLE No. 1. FACTORY AND MERCANTILE INSPECTION BY DEPARTMENT OF WOMEN AND CHILDREN--GROUPED ACCORDING TO CITY AND INDUSTRY

City	Retail Mercantile Establish- ments	Wholesale Mercantile Establish- ments	Factories	Laundries and Cleaning Establish- ments	Millinery	Dressmaking	Telegraph, Telephone & Messenger Service	Hair Dress- ing and Manicuring	Totals
St. Paul.	62	15	58	22	11	23	..	1	192
Minneapolis	22	1	41	17	6	9	..	..	96
Duluth	63	18	57	5	19	15	10	7	194
Bemidji	11	..	2	2	3	..	..	..	18
Eveleth	8	..	..	2	1	..	1	..	12
Faribault	5	..	8	2	3	..	..	..	20
Gilbert	3	..	..	..	..	..	1	..	4
Hibbing	9	..	3	3	..	..	2	..	17
Mankato	13	1	6	5	2	..	2	..	29
Owatonna	8	..	1	1	2	..	1	..	13
Two Harbors	1	..	..	..	..	..	..	..	1
Virginia	17	..	1	8	2	..	2	..	30
Winona	24	..	24	6	3	3	3	..	63
Totals	246	35	201	73	52	50	24	8	*089

*A reinspection was made of 259 establishments and 2 were inspected a third time.

TABLE No. 2—NUMBER OF WOMEN AND CHILDREN EMPLOYED IN ESTABLISHMENTS INSPECTED BY BUREAU OF WOMEN AND CHILDREN

INDUSTRY	Employees			
	Women	Boys	Girls	Total
Retail mercantile establishments.....	2,761	15	10	2,786
Wholesale mercantile establishments.....	5,488	6	4	5,498
Factories.....	5,849	34	64	5,938
Machinery and cleaning establishments.....	1,405	5	6	1,416
Millinery.....	475	2	...	477
Dressmaking.....	472	1	4	477
Telegraph, telephone and messenger service.....	397	6	...	403
Hair dressing and manicuring.....	15	...	...	15
Totals.....	12,223	69	88	12,380

TABLE No. 3—SUMMARY OF HOURS OF LABOR OF 12,223 WOMEN WORKERS IN 689 ESTABLISHMENTS

Number of Women Working Specified Hours per Day										
Less than 8 hours		8 hours	Over 8 to 8½	Over 8½ to 9	Over 9 to 9½	Over 9½ to 10	Over 10 to 12	Over 12	7 hours one day and 14½ next day	
42	.35	1,545 12.62	904 7.38	6,362 52.10	2,258 18.40	972 7.95	112 .97	6 .05	22 .18	
Number.....										
Per cent.....										
Number of Women Working Specified Hours per Week										
Less than 45	45 and less than 48	Over 48 to 50	Over 50 to 53	Over 53 to 54	Over 54 to 57	Over 57 to 60	Over 60 to 63	Over 63 to 70	Over 70 to 80	Over 80
46	674 5.51	622 5.10	3,456 28.20	4,862 39.80	1,530 12.50	601 4.90	77 .65	73 .63	36 .33	2 .02
Number.....										
Per cent.....										

TABLE No. 4—ORDERS ISSUED ON ALL ESTABLISHMENTS INSPECTED BY THE BUREAU OF WOMEN AND CHILDREN BASED ON LAWS GOVERNING THE EMPLOYMENT OF WOMEN

Violations	Factories and Shops	Laundries	Stores	Restaurants	Telephone & Telegraph	Total
Hours of Labor—						
Working over 58 hours a week	53	19	115	208	4	323
Working over 54 hours a week	13	3	14	1	5	76
Not legal allowance for meal time	24	6	56	62	4	162
Hour schedules for work not posted						
Seats—						
Not sufficient in number	4	3	4	2		13
Workrooms—						
Bad ventilation	0	7		2	1	10
Bad sanitation	27	4	2	15		48
Bad repair				3		3
Dangerous conditions	9	1		3		13
Dressing Rooms—						
Need of new and separate accommodations for women	3	0	1	13		23
Bad sanitation	2	5		15		22
Toilets—						
Need of new and separate fixtures for women	18	10	30	34	1	193
Bad repair	3	4		1		8
Bad sanitation	18	22	53	21	2	116
Removal of fixtures from kitchens				13		13
Proper enclosure of fixtures	6	6	14	8		34
Stairways—						
Bad repair	5	8	9	11		33
Dark	1	3	1	1		5
Dirty						1
Basements—						
Bad sanitation	1	2	2	2		7
Discontinuance as workrooms	2					2
Total	198	109	302	413	17	*1,039

*Includes 145 orders issued previous to July 31st, 1913.

†93 orders for new and separate toilets have been issued on 93 establishments. One order in some cases covering as many as 12 new toilet fixtures.

TABLE No. 5—STATISTICS OF WOMEN WORKERS IN RESTAURANTS

	Cities of First and Second Classes				Total of Cities of 1st and 2d Classes	*Total of 14 Cities of the 3d and 4th Classes	Total of all Classes	Percentage of Totals of all Classes
	Minneapolis	St. Paul	Duluth	Winona				
Total number of employees in restaurants inspected.....	1,086	370	393	50	1,879	254	2,133	
Number of male employees.....	288	168	190	13	629	76	705	33
Number of female employees.....	798	202	213	37	1,250	178	1,428	67
Number of Sunday workers.....	718	324	198	10	1,250	178	1,428	67
Number of night workers.....	153	112	43	2	310	66	376	17
Number of seven day week workers.....	718	324	198	50	1,250	189	1,439	67
Total	99	52	24	10	185	49	234	
Number of restaurants inspected.....	62	42	22	4	130	28	158	67
Number employing males.....	37	10	2	6	55	21	76	33
Number not employing Sunday workers.....	80	45	22	10	157	46	203	86
Number not employing night workers.....	19	7	13	.....	28	3	31	14
Number not employing Sunday workers.....	41	31	13	.....	86	28	114	48
Number not employing night workers.....	38	21	11	9	59	21	80	32
Number not employing seven day week workers.....	80	45	22	10	157	46	203	86
Number not employing seven day week workers.....	19	7	13	.....	28	3	31	14
Number of restaurants with dressing rooms.....	151	11	20	11	183	17	199	15
Number of restaurants without dressing rooms.....	41	4	4	6	92	29	121	55
Total	4	2	3	.....	9	4	11	
Number of restaurants with toilets.....	183	146	24	10	163	46	209	93
Number without toilets.....	7	4	.....	.....	11	3	14	6
Number of toilets not sanitary.....	10	4	.....	.....	24	17	33	14
Number of toilets in kitchen or outside of building.....	33	13	4	.....	90	17	107	34
Total	99	52	24	10	185	49	234	
Number of kitchens inspected.....	25	14	17	3	53	17	70	29
Number of kitchens not clean.....	25	14	17	3	53	17	70	29
Number of kitchens not well lighted.....	47	18	15	5	85	12	97	41
Number of dining rooms inspected.....	99	52	24	10	185	49	234	
Number of dining rooms not clean.....	2	2	1	.....	6	7	13	5
Number of dining rooms not well lighted.....	3	7	.....	.....	10	2	12	5
Number of dining rooms not well ventilated.....	17	9	.....	.....	26	2	28	14
Number of restaurants selling liquor.....	16	3	2	5	26	3	29	6
Total	16	3	2	5	26	3	29	
Number of restaurants where time schedules posted.....	28	6	12	.....	46	13	59	19
Number of restaurants violating labor law by not posting time schedules.....	71	46	12	10	139	17	156	76
Total	21	16	13	9	59	11	70	

*Includes the following: Austin, Bemidji, Eveleth, Fergus Falls, Faribault, Gilbert, Henning, Hibbing, Owatonna, Red Wing, Rochester, St. Cloud, South St. Paul and Virginia.

†Exclusive of dressing rooms and toilets located in dwelling apartments in other parts of the building.

‡The hour law and requirement for time schedules applies only to cities of the 1st and 2d classes.

TABLE No. 6—WOMEN WORKERS IN RESTAURANTS—PERSONAL FACTS

	Waitresses		Cooks		Other Kitchen Help		Total of all help in all classes of cities
	In cities of the 1st and 2nd class	In cities of the 3rd and 4th class	In cities of the 1st and 2nd class	In cities of the 3rd and 4th class	In cities of the 1st and 2nd class	In cities of the 3rd and 4th class	
Age—							
Number under 18 years	8	6			9	3	28
Number 18 to 25 years	177	32			110	23	374
Number over 25 years	59	9	47	6	35	5	161
Marital condition—							
Number single	207	43	36	5	142	21	454
Number married	47	1	26	4	15	2	95
Number widowed	5	1	6	2	4	1	19
Residence—							
Number at home	58	14	30	4	20	3	129
Number not at home	186	30	32	5	126	17	396
Number with proprietor's family	20	29	5		18	13	90
Wages—							
Number earning under \$5.00	119	11		1	27	12	170
Number earning \$5.00 to \$6.00	54	27			43	7	132
Number earning \$6.00 to \$7.00	104	24	5	1	136	12	282
Number earning \$7.00 to \$8.00	231	24	81	11	103	8	458
Number earning \$8.00 and over	75	6	42	7	17	2	149
Hours of labor—weekly—							
Number working under 50 hours per week	212		25	3	84	4	328
Number working 50 to 58 hours a week	310	11	20	3	174		577
Number working over 58 hours per week (legal limit)	66	83	25	17	37	39	357
Total number of hours worked above the legal limit	685	1,231	231	282	678	463	3,570
Average overtime for each one working more than the legal limit	10	14	9	17	12	18	134
Hours of labor—daily—							
Number working under 8 hours a day each working day	174	3	10		38	1	226
Number working 8 hours a day each working day	180	3	50	3	109	1	356
Number working over 8 hours a day each working day	100	38	40	14	88	26	306
Number working alternate days of long and short hours	124	50	35	5	80	15	369
Number working shifts interrupted by long relief periods ("broken watches")	299	55	55	10	139	22	540
Number having 2 to 3 hours relief in the afternoon	31	20	34	8	84	19	256
Number having 3 to 4 hours relief in the afternoon	119	31	12		44	1	207
Number having irregular relief hours in the forenoon or afternoon	49	4	9	2	11	2	77

PART VI.

MINE INSPECTIONS.

It has been the custom of the department of labor to publish the reports of the county mine inspectors in the exact form in which these reports were filed with the county commissioners by whom these inspectors are appointed. But this plan is no longer practicable. There are now three inspectors and each one files an annual report. Each year these reports are longer. The department has therefore found it necessary to combine the 1913 and 1914 reports filed by the inspectors into a single report and to eliminate all duplications and material that can be dispensed with. This is in harmony with the policy which has led the department to condense its report on its own work to the smallest possible size. It is believed that the report of the department, and of the mine inspectors as well, will receive a much larger reading if concise than if overloaded with a wealth of detail. It is also important to remember that the exercise of proper self control by the various departments in the matter of publications means the saving of large sums to the state treasury.

The reports of the mine inspectors of St. Louis, Itasca and Crow Wing counties show the following totals for the statistical years ending on June 30, 1913, and June 30, 1914.

TONS OF ORE SHIPPED.

	1913.	1914.
St. Louis county.....	30,101,451	27,409,441
Itasca county	5,464,649	3,534,415
Crow Wing county.....	452,450	674,516
The entire state	36,018,550	31,618,372

CUBIC YARDS OF STRIPPING REMOVED.

	1913.	1914.
St. Louis county	10,812,529	14,696,260
Itasca county	3,598,835	4,645,169
Crow Wing county	1,018,456	2,462,666
The entire state	15,429,820	21,804,095

NUMBER OF MEN EMPLOYED.

	1913.	1914.
St. Louis county	16,048	16,600
Itasca county	2,595	2,527
Crow Wing county	1,327	1,054

The entire state	19,970	20,181
------------------------	--------	--------

Average wages, 1914: St. Louis county, \$2.95; Itasca county, \$2.81.

It will be observed from these figures that 2,692,010 tons more ore was shipped in 1913 than in 1914, but that 4,400,178 cubic yards of stripping were removed in 1914 in excess of that removed in 1913, and that the total ore and stripping handled in 1914 constituted a volume of work slightly larger than the work done in 1913. Approximately 200 more men were employed in 1914 than in 1913.

The letters of transmittal sent by the mine inspectors are perhaps the best commentary that can be presented upon conditions of the mining ranges, and are therefore presented with the statistical tables that give the detailed facts for the several counties.

ST. LOUIS COUNTY.

Eveleth, Minn., August 30th, 1913.

W. F. Houk, State Commissioner of Labor, St. Paul, Minn.

Dear sir: I herewith submit my report as mine inspector for St. Louis county for the year July 1, 1912 to June 30, 1913. The summary and following statements show the result of the year's operations and the data re-

quired by law. You will note that the year's shipments show a considerable increase over any previous year and that there were seven fatal accidents less than last year.

During the year there were 44 fatal accidents or 2.79 per 1,000 men employed and 76 serious injuries or 4.74 per 1,000 employed. Also there were 364 men employed and 684,124 gross tons of ore mined for each fatal accident, and 211 men employed and 396,071 tons mined for each serious injury.

Of the fatal accidents 29 occurred in connection with underground work and 15 in connection with surface and open pit work; 25 per cent was caused by falls of ground or cave-ins, 18 per cent by cars and locomotives, 9.09 per cent by explosives and 6.81 per cent by skips and cages.

Of the serious injuries 31.58 per cent were caused by falls of ground or rocks and frozen chunks rolling from the banks, 25 per cent by cars and locomotives, 15.79 per cent from explosives, 6.58 per cent by skips and cages and 3.95 per cent by machinery.

The decrease in the number of accidents in the past three years clearly proves that it pays to consider "safety first," and the mining companies are showing no indication of relaxing in this good work, as they are still making special efforts, appointing safety committees and spending much money to protect the lives of their employees.

A large percentage of the accidents can be attributed to carelessness and some from gross ignorance, and a great many safety devices have been adopted to protect those who are negligent of their own safety.

The opening of night schools throughout the mining district during the school year is also a very commendable aid in helping minimize accidents, as it is the foreigners who are unable to speak English and work in the mines that are the principal attendants.

The child labor law is carefully adhered to in all mines.

Yours very truly,

W. H. HARVEY,
Mine Inspector.

Eveleth, Minn., August 25, 1914.

W. F. Houk, State Commissioner of Labor, St. Paul, Minn.

Dear sir: I herewith submit my annual report as mine inspector for St. Louis county for the year July 1, 1913 to June 30, 1914. The summary and following tables show the result of the year's operations and the data required by law.

Mines operated during the first part of the year and closed down during the latter part of it are shown in the tables as mines not operating.

During the year there were 43 fatal accidents among 16,600 employees, or 2.59 fatalities per 1,000 men employed; also 386 men were employed and 637,429 gross tons of ore mined per fatal accident. Of the fatal accidents 24, or 56 per cent, occurred underground and 19, or 44 per cent, in connection with surface and open pit work. There were also 58 serious non-fatal accidents. This is a decrease from last year of 3 per cent in the fatal accidents and 24 per cent in serious non-fatal accidents. This decrease may appear to be small but there were nearly 600 more men employed this year than last year.

During the year mine rescue car No. 8 of the federal bureau of mines was stationed at different points throughout the county and instructions in "mine rescue" work and "first aid" work was given the mine employees. The instructions in rescue work was given by Mr. W. W. Sullivan, and first aid work by Mr. A. A. Krogdahl. The work was taught in a very thorough and painstaking manner, and if the interest is maintained and kept up much benefit to both employer and employee should result from it.

Mine rescue apparatus of the Draeger type have been installed at mines of the Oliver Iron Mining Company, Republic Iron & Steel Company, Pickands-Mather & Company and The Shenango Furnace Company; also "first aid" outfits are maintained at the mines, both underground and on surface,

and trained men so placed that there are always some on each shift who are capable of taking charge in case of accident.

At all mines I have found ventilation and sanitation good.

Yours very truly,

W. H. HARVEY,

Mine Inspector.

ITASCA COUNTY.

W. F. Houk, Commissioner of Labor, St. Paul, Minn.

Dear sir: This year shows an increase in accidents, but it is not due to any failure on the part of the companies to provide safeguards. The increase must be attributed to the fact that an ever increasing number of men employed in the mines is recruited from the newly arrived immigrants from the southwest of Europe. The practical miner and the better class of labor is leaving the iron ranges for the western mining fields, making it more difficult year after year to secure efficient labor for the mines. It will take some time to train the foreign element into first-class miners, and meanwhile the mine managements are put under hard strain to guard this class against accidents. Not speaking English, unaccustomed to the work, the consequence is that these men get injured oftener than would be the case with practical men. Doing the rougher class of work, such as handling rails, ties, timber, etc., no safeguards can be provided for them. The accident tables show that most of the accidents occurred at this kind of work.

The work of accident prevention by the mining companies in our county deserves a word. Most of the companies, especially the Oliver Iron Mining Company, spare no expense in installing safety appliances on their machinery and otherwise safeguarding their men. Safety committees have been organized in many mines, whose duty it is to inspect the workings at frequent intervals. On their inspection trips they note violations of rules, confer about accidents that occurred previous to the trip, and work out measures for their prevention. Their recommendations are generally accepted by the management. Such accidents as emery dust getting into the eyes, or the breakage of a water-gauge glass and destroying the eye sight, are now a thing of the past. In spite of the handicap of inefficient labor, I have confidence that as the companies progress in their work of accident prevention the accident rate will be materially reduced.

Labor in the iron mines of Itasca county is contented and prosperous. About February 1, 1913, the companies voluntarily increased the wages of common labor from \$2.10 to \$2.25, with corresponding increases for other classes of labor. The men appear to be on good terms with the mine managements. We have not been troubled with strikes and labor turmoils that beset other regions.

Respectfully submitted,

P. L. RAMQUIST,

Inspector of Mines.

W. F. Houk, Commissioner of Labor, St. Paul, Minn.

Dear sir: I have the honor of submitting to you my annual report as inspector of mines for the county of Itasca, for the year ending June 30, 1914.

In the course of the year I made 325 inspections, sixty of which covered underground properties. The rest of the inspections covered open pits, dumps, tracks, locomotives, steam shovels, boilers, power and washing plants, and territory in proximity to mines with respect to old shafts and test pits. In most cases I found the conditions very satisfying. It gives me great pleasure to report that the mining companies are doing everything in their power to make mining safer. The smaller companies are gradually falling in line in the work of accident prevention. Anyone familiar with conditions as they existed a few years ago will be surprised at the change

that has taken place. Safety appliances have been installed on gears, overhead walks equipped with railings and toe-boards, warning signs posted in all dangerous places and a great many other measures too numerous to mention have been taken to safeguard the men.

It must be remembered that the bulk of mining in our county is done by open pit method, which consists of removing the overburden and the ore by steam shovels. In open pit properties the chief dangers are encountered from high banks, blasting and constant movement of trains. To protect their men from blasts most of the companies now provide shelter houses of steel construction. These houses are distributed throughout the pit and the men required to go into them before a blast. Bank trimmers are employed to trim the banks of loose rock and dirt to prevent possible accidents from rock rolling down on men working below. Overhanging banks are blasted down to give them the proper slope. In many mines the men are prohibited from walking on tracks and watchmen are employed to patrol the tracks and see that this rule is obeyed.

In underground mines, such as the Crosby, Bennett, Pearson, Mississippi and Bray, the "slicing and caving" system is used. This is the safest and most economical method of mining. With this method the entire ore body can be mined out, as it is not necessary to leave pillars for supports. I found the underground workings in good condition. The shafts are of substantial construction, the drifts are timbered wherever necessary, good natural ventilation is maintained, and in every mine there are several outlets to provide means of escape in case of accident.

In my report for last year I stated that the outlook seemed promising for a great increase in ore shipment. As a matter of fact the ore shipment in 1913-14 was nearly 2,000,000 tons less than in 1912-13, dropping from 5,464,649 tons in the latter year to 3,534,415 tons in 1913-14. This was due entirely to the general business depression which began to be acutely felt in the iron and steel industry in the early part of 1914. Otherwise, the mining conditions were fairly satisfactory. Over a million more yards of overburden were stripped in 1913-14 than in the preceding fiscal year; the number of employed remained practically the same—2,580 in 1912-13 and 2,527 in the year under consideration; while the average daily wage was \$2.81 as against \$2.705 in 1912-13, an increase of four per cent. Five additional mines were opened up during the year 1913-14, as follows: The Grand Rapids, Fargo, Buckeye, Arcturus, and the Hill Annex. There are now twenty-one mines in Itasca county, of which nineteen were in operation and thirteen shipped ore during the past year.

Respectfully submitted,

P. L. RAMQUIST,

Inspector of Mines.

CROW WING COUNTY.

Brainerd, Minn., July 21, 1914.

W. F. Houk, Commissioner of Labor, St. Paul, Minn.

Dear sir: I herewith respectfully submit my annual report as inspector of mines for the county of Crow Wing for the year ending June 30, 1914.

It gives me pleasure to report that, in the face of the general spirit of pessimism that has gone broadcast on all sides about us, the conditions in our county have been, as a whole, rather encouraging, and the confidence of the people of the community in our infant industry has not been shaken. While I must report three properties as having ceased operations, you will note that during the year three others have opened up and are at present at an advanced stage of development.

Also I would call attention to the fact that, though the reasons for ceasing work in these three instances are not generally understood, we can rest assured that they contain ore in plenty and of high grade. Exploration also that is being carried out throughout the county shows up well and all indications point toward enormous quantities of ore of high grade. This we find true both on the north and south ranges.

As to safety, the conditions are well nigh ideal. In no case has hesitation or remonstrance been shown when suggestions have been given where

safety was concerned. Officials are courteous and willing to co-operate with me in holding "safety first." Ample fire protection and means of exit are provided. As a result of this attitude on the part of the operators, we can point with pride to the fact that during the year only one fatality has occurred and but few serious accidents. The detailed report shows the minor injuries which will inevitably occur as long as mining is pursued.

In the older properties, comfort and sanitation are considered and provided for. Comfortable change houses (in some cases fireproof) with hot and cold water, steam heat, individual wash basins, shower baths and sanitary steel mouse-proof lockers are some of the desired features to be found.

Yours very truly,

AUGUST SWANSON,

Mine Inspector.

The 1913 letter of transmittal does not add to the information conveyed by the 1914 letter and is therefore omitted.

TABLE NO. 1—SUMMARY OF MINE STATISTICS, ST. LOUIS COUNTY.

	1913.	1914.
Number of mines operated.....	99	85
Number of mines not operated.....	20	42
*Total number of mines.....	119	127
Number of visits and inspections.....	306	297
Number of men employed, underground.....	7,867	8,065
Number of men employed, surface.....	2,699	2,740
Number of men employed, open pit mining.....	2,954	3,267
Number of men employed, open pit stripping.....	2,528	2,538
Total number of men employed.....	16,048	16,600
Number of tons ore shipped, underground.....	11,651,733	9,842,629
Number of tons ore shipped, open pits.....	18,449,718	17,566,812
Total shipments.....	30,101,451	27,409,441
Number of cubic yards stripping removed.....	10,812,529	14,696,260
Number of fatal accidents, underground.....	29	24
Number of fatal accidents, surface and open pit.....	15	19
Total number of fatal accidents.....	44	43
Number of fatalities per 1,000 men employed.....	2.75	2.59
Number of tons ore mined to each fatality.....	681,124	€37,429
Number of serious non-fatal accidents.....	76	58

*Worked out mines not included.

TABLE NO. 2—AVERAGE WAGES, MINES OF ST. LOUIS COUNTY, MINN., FROM JULY 1, 1913, TO JUNE 30, 1914.

SURFACE AND OPEN PIT.

	Average Rate	
Clerks.....	\$2.50	to \$3.75
Timekeepers.....	2.285	to 2.50
Machinists and helpers.....	2.875	to 4.00
Blacksmiths and helpers.....	2.80	to 3.85
Carpenters and helpers.....	3.00	to 3.68
Changehousemen and janitors.....	2.00	to 2.174
Teamsters and barnmen.....	2.38	to 2.48
Foremen and bosses.....	3.061	to 4.64
Steam shovel engineers.....	5.77	to 6.73
Steam shovel cranners.....	4.636	to 4.81
Steam shovel firemen.....	2.633	to 2.88
Steam shovel pitmen.....	2.25	to 2.50
Locomotive engineers.....	4.25	to 4.90
Locomotive firemen.....	2.65	to 2.88
Locomotive brakemen.....	2.50	to 3.08
Stationary engineers.....	2.65	to 2.75
Stationary firemen.....	2.40	to 2.60
Common labor.....	2.00	to 2.25

UNDERGROUND.

Shift bosses.....	3.203	to 3.68
Miners, company account.....	2.45	to 2.65
Miners, contract account.....	2.73	to 2.98
Timbermen, company account.....	2.50	to 2.60
Timbermen, contract account.....		3.16
Trammers, company account.....	2.40	to 2.46
Trammers, contract account.....		2.70
Motormen.....	2.40	to 2.60
Pump and pipemen.....	2.60	to 2.65
General labor.....	2.25	to 2.50

Total average.....\$2.947

TABLE No. 3—FATAL ACCIDENTS, ST. LOUIS COUNTY, 1913-1914

Name of Mine	Number of Fatalities		Nature of Accident	Occupation			
	1913	1914		1913	1914	1913	1914
Underground							
Alpena.....	3	3	Cave-in.....	7	13	Miners.....	17
Adriatic.....	1	1	Fall of ground.....	4	5	Tanners.....	2
Alberta.....	1	1	Fall from skip.....	1	1	Skriptenders.....	1
Adams.....	3	1	Slips and cages.....	3	1	Pumpmen.....	1
Belgrade.....	1	1	Material fell down shaft.....	1	1	Carpenters.....	1
Brunst.....	1	1	Scalded.....	1	1	Shift boss.....	1
Buffalo-Susquehanna.....	2	2	Premature explosion.....	2	1	Tram boss.....	1
Cavour.....	2	1	Delayed blasts.....	1	1	Pipeman.....	1
Chisholm.....	1	2	Caught between car and timber.....	3	1	Muledriver.....	1
Corsica.....	1	1	Drowned.....	1	1	Master mechanic.....	1
Clark.....	1	1	Fell down raise.....	1	1	Timberman.....	1
Dean.....	2	2	Drawn into chute with ore.....	2	1		
Fayal.....	1	2	Tram cars and motors.....	1	1		
Franklin.....	1	1	Fell from bench of oak.....	1	1		
Genoa.....	1	1	Fell down shaft while working in it.....	3	3		
Grace.....	1	1					
Harold.....	1	1					
Hull-Rust.....	1	1					
Kinney.....	1	1					
Lincoln.....	1	1					
Leonora.....	1	1					
Leetonia.....	1	1					
Longyear.....	1	1					
Mahoning.....	1	1					
Malta.....	2	2					
Morton.....	2	2					
Minorca.....	1	1					
Meadow-Fowler.....	1	1					
Miller.....	1	1					
Surface and Open Pit							
Electricity.....							
Steam Shovels.....							
Cars and locomotives.....							
Scalded.....							
Banks slid.....							
Stockpiles slid.....							
Premature explosion.....							
Rock fell off car.....							
Suffocated by loose ore in milling chute.....							
Lifting rail.....							
Horses ran away.....							
Fell from bank.....							

TABLE IV-A—MINE SHIPMENTS FROM ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1912, TO JUNE 30th, 1913

Mines	Shipments		Cubic Yards Stripping Removed	Number of Men Employed				Months Operated	
	Under-ground	Open Pit		Under-ground	Surface	Open Pit			Total
						Mining	Stripping		
Oliver Iron Mining Co.—									
Pioneer.....	678,385			254	113			367	
Savoy.....	78,910			45	5			50	
Sibley.....	328,045			97	55			152	
Zenith.....	480,465			337	29			366	
Soudan.....	95,275			98	47			145	
Graham.....			363,043	8	31		83	122	
Vivian.....				15	22			37	
Burt.....	26,625	166,138		41		54		12	
Sellers.....		166,889				25	23	12	
Morris.....						8		12	
Winifred.....				30	13			43	
Hull Rust.....	107,645	2,640,899	120,806			225	13	238	
Day.....									
Penobscot.....									
Dale.....	11,696	902,754		7		65		73	
Uno.....	54,462	1,756,809		45		140		185	
Harold.....	169,174			118	40			158	
Mace.....	144,207			65	32			97	
Clark.....	499,776			192	60			252	
Glen.....	15			6				6	
Leonard.....	543,360	1,476,610	108,559	349	68	196	8	621	
Nivers.....	82,048			38	23			61	
Pillsbury.....									
Chisholm.....	626,046			301	84			385	
Monroe-Tencer.....	127,406		371,668	119	71		92	282	
Hartley.....						4	1	5	
St. Clair.....					1				
Adams.....	292,317	923,879	360,174	188	116	121	111	536	
Spruce.....	696,019			349	94			443	
Auburn.....									
Norman.....	446,141								
Fayal.....	442,637	163,742		242	198			440	
Genoa.....	87,132			379	154	32		565	
Gilbert.....	167,747	1,245,764	109,541	79	37	200	20	336	
Duluth.....				119	38			157	
McKinley.....					2			2	
					2			2	

TABLE IV-A—MINE SHIPMENTS FROM ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1912, TO JUNE 30th, 1913—Continued

Mines	Shipments		Cubic Yards Stripping Removed	Number of Men Employed					Months Operated
	Under-ground	Open Pit		Under-ground	Surface	Open Pit		Total	
						Mining	Stripping		
Sauntry-Alpena	369,036	821,632	141,026	278	69	484	31	862	12
Higgins				2	3			5	
Mountain Iron						2		2	
Stephens						2		2	
Missabe Mountain	5,592	113,643				10		10	3
Pickands, Mather & Co.—									
Mohawk	166,607			137	29			166	12
Bangor	131,228			114	37			151	12
Corsica	250,885			152	28			180	12
Elba	143,746			107	43			150	12
Malta	9,633			54	19			73	12
Troy	17,578			48	22			70	12
Minorea	68,442			98	30			128	10
Yawkey	24,939			46	14			60	7
Virginia		252,715				72		72	8
Hudson		219,508		30	8			38	8
Seranton	240,073			175	47			222	12
Utica	73,702	230,240	238,917	56	17	57	81	211	12
Albany		292,159	60,221	42		31	104	177	12
Republic Iron & Steel Co.—									
Union		297,553	161,990		16	32	51	146	12
Franklin	51,694			47	22			68	12
Onondaga				36	10			21	
Bessemer No. 3	37,544			11	10			10	6
Victoria									
Bessemer No. 4	90,388				10			10	
Monica	74,184			36	14			50	12
Wills									
Nariska									
Pettit	149,751			114	19			133	12
Schley	166,032			133	87			222	12
Kinney		491,286	286,558			83	96	179	8
Mahoning Ore & Steel Co.—									
Mahoning		1,600,226	1,130,430			145	197	342	12
Inter State Iron Co.—									
Leetonia	214,817	177,712		127	71	30		228	12

TABLE IV-A—MINE SHIPMENTS FROM ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1912, TO JUNE 30th, 1913—Continued.

Mines	Shipments		Cubic Yards Stripping Removed	Number of Men Employed				Months Operated
	Under- ground	Open Pit		Under- ground	Surface	Open Pit		
						Mining	Stripping	
Longyear.....			860,672		1		190	191
Grant.....		511,734	480,731	6	22	32	98	158
Lincoln.....	157,740			136	63			199
Meadow.....	16,700			21	4			25
Powder.....	176,265			72	21			98
Nassau.....								
Columbia.....								
The Shenango Furnace Co.—								
Shenango.....	192,848	609,881	1,110,007	203	22	68	134	427
Webb.....	239,286			126	23			149
Whiteside.....	149,939			127	26			153
Pitt Iron Mining Co.—								
Miller.....	352,350			230	38			268
La Belle.....	3,776			8	6			14
Wacootah.....		129,073				45		45
Inland Steel Co.—								
Laura.....	287,881			160	32			192
Grace.....	106,093			85	20			105
Corrigan, McKinney & Co.—								
Stevenson.....	199,231	565,290		68	15	145		228
Commodore.....		602,747	77,415	4		93		97
M. A. Hanna & Co.—								
Brunt.....		248,811	231,278	15		75	102	177
Hanna.....	8,416	152,011	6,316	65	10	35		50
Croton.....	88,431							75
Silver.....	37,111	293,520	244,026	75	15	75	73	238
Hobart.....								
Larkins—from stockpile.....	63,470				15			15
Knox—from stockpile.....	22,586				15			15
Roberts—from stockpile.....	10,101			50	15			15
Allen.....	6,659				15			65
Agnew.....		56,436			2	24		30
Adriatic.....	97,897			86	19			105
Alberta.....	4,881			25	7			32
Riwabik.....			100,000					140
Cavour.....	71,256	312,000		120	20	90	50	140

TABLE IV-A—MINE SHIPMENTS FROM ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1912, TO JUNE 30th, 1913—Continued

Mines	Shipments		Cubic Yards Stripping Removed	Number of Men Employed				Months Operated	
	Under- ground	Open Pit		Under- ground	Surface	Open Pit			Total
						Mining	Stripping		
Cypress.....		96,745		79	11	47		47	7
Chandler.....	75,773		900,000					90	12
Dean.....			1,695,442					182	8
Dunwoody.....		25,642	72,442	9				275	12
Helmer.....						30	50	89	7
Iroquois.....	113,644			100	35			135	10
Larkins.....	7,961			11	6			17	12
Kellogg.....	92,982			98	21			119	12
Knox.....	66,791			29	11			40	6
Eaton.....				8	4			12	3
Maderia.....	15,000			10	6			16	3
Madrid.....	74,000			25	8			33	12
Morrow.....			158,895				108	108	4
Morton.....	19,626			86	32			118	12
Perkins.....		89,472				34		34	7
Pearce.....	113,729			7	29			36	5
Roberts.....	11,343			15	5			20	12
Susquehanna.....	88,072	815,298	1,122,860	27	41	105	205	378	12
Smith.....			299,612				150	150	8
Section 17.....	14,485			24	6			30	12
Ruddy.....	32,600			44	8			52	12
Woodbridge.....	99,092			130	37			167	12
White Iron Lake (Euclid)	16,885			16	4			20	12
Williams.....	43,425			58	12			70	12
Vermilion and Mesaba.....									
Iron Co.'s Exploration.....				13	13			26	
North American, exploration.....				14	12			26	
North American, extension.....				14	12			26	
Total.....	11,651,733	18,449,718	10,812,529	7,867	2,699	2,954	2,528	16,048	

TABLE IV-B—SHIPMENTS OF IRON ORE, NUMBER OF CUBIC YARDS OF STRIPPING REMOVED AND NUMBER OF MEN EMPLOYED.
MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914

Mines	Shipments, Tons		Cubic Yards Stripping Removed	Number of Men Employed				Total	Number of Months in Operation
	Under- ground	Open Pit		Under- ground	Surface	Open Pit			
						Mining	Stripping		
Adams.....	200,508	1,178,526	301,617	138.3	45.0	147.8	178.3	599.4	12
Burt.....	87,220	420,205		38.2	121.2			159.4	12
Clark.....	323,370			193.6	52.4			246.0	12
Chisholm.....	590,268			300.9	73.5			376.4	12
Carson Lake.....		673,600				1.6		1.6	13
Dale.....					21.0	137.9		137.9	12
Duncan.....					1.1			21.0	6
Duluth.....					15.6			19.9	5
Deacon.....				4.3					12
Fayal.....	507,471	620,372	207,855	426.3	160.1	72.8	46.0	705.2	12
Gilbert.....	43,901			12.4	15.3			27.9	12
Genoa.....	271,369	672,053	55,088	181.9	77.8	117.9		377.6	12
Glen.....				1.0	4.9			3.9	
Graham.....		194,189	311,581	32.7	61.1	40.0	72.8	203.6	12
Harold.....	54,867			102.4	34.0			136.4	12
Hull-Rust.....		2,378,981	1,549,069			203.7	212.4	416.1	12
Hartley.....		7,506				10.0		10.0	
Higgins.....				4.4	4.6			9.0	12
Leonard.....	667,914	966,420	475,542	214.2	51.8	104.0		469.0	12
Leonidas.....				55.6	65.7			121.3	12
Morris.....						7.2		7.2	
Mace.....	138,037			75.7	19.7			95.4	12
Monroe-Tener.....	353,474			198.7	93.6		81.7	334.0	12
Myers.....	21,045			43.1	26.2			69.3	12
Minnewas.....				4.2	17.2			21.4	9
McKinley.....					1.2			1.2	12
Missabe Mountain.....		208,192				15.3		15.3	6
Mountain Iron.....						1.9		1.9	
Norman.....				178.3	43.3			221.6	12
Phinde.....	283,583		360,258	6.7			76.9	76.9	6
Philbin.....					22.9			23.6	9
Sellers.....		101,181	866,433			39.0	33.6	69.6	12
Sheridan-Day.....			163,310				63.7	63.7	5

TABLE IV-B—SHIPMENTS OF IRON ORE, NUMBER OF CUBIC YARDS OF STRIPPING REMOVED AND NUMBER OF MEN EMPLOYED
MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914—Continued

Mines	Shipments, Tons		Cubic Yards Stripping Removed	Number of men Employed				Total	Number of Months in Operation
	Under-ground	Open Pit		Under-ground	Surface	Mining	Stripping		
St. Clair.....					2.1			2.1	12
Spruce.....	372,642			393.5	95.5			489.0	12
Sauntry-Alpena.....	492,618	1,069,640	1,061	382.9	92.0	429.4		804.3	12
Shiras.....				4.3	8.4			12.9	4
Sullivan.....				11.5	19.0			30.5	12
Stephens.....						.6		6	12
Uno.....	50,649	1,555,866	25,119	37.2	38.5	135.8		211.5	12
Vivian.....	14,829			63.9	18.8			82.7	12
Weed.....				7.4	16.5			23.9	6
Winifred.....	14,920			20.7	11.7			32.4	12
Wanless.....				8.7	28.8			37.5	10
Crecent (trespass)									
Pioneer.....	1,022			271.8	114.0			385.8	12
Savooy.....	402,779			46.0	5.5			51.5	12
Sibley.....	74,859			110.7	58.3			169.0	12
Soudan.....	174,742			92.8	51.7			144.5	12
Zenith.....	76,510			343.8	29.8			373.6	12
Albany.....	400,580			36.2	61.3	63.4	98.7	259.6	10
Seranton.....	233,043	31,435	332,086	186.4	42.5			228.9	6
Utica.....	119,770			65.8	18.8	77.2	85.5	247.3	12
Bangor.....	88,689	194,994	31,600	126.9	41.5			178.4	12
Belgrade.....	124,621			103.9	39.2			143.1	12
Corsica.....	43,747			131.9	23.8			155.7	12
Elba.....	158,827			116.7	37.2			153.9	12
Hudson.....	94,470	204,202				59.6		59.6	4
Mohawk.....	157,908			103.6	25.8			129.4	12
Minorek.....	65,147			113.5	31.5			145.0	12
Malta.....	84,081				17.0			67.2	7
Troy.....	53,169			49.6	17.8			67.4	4
Virginia.....		335,676				111.6		111.6	6
Yawkey.....	15,940			44.5	8.5			53.0	4
Franklin.....	36,251			45.0	17.0			62.0	4
Kinney.....		352,800	290,225			69.0	84.0	153.0	12

TABLE IV-B—SHIPMENTS OF IRON ORE, NUMBER OF CUBIC YARDS OF STRIPPING REMOVED AND NUMBER OF MEN EMPLOYED.
MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914—Continued

Mines	Shipments, Tons		Cubic Yards Stripping Removed	Number of Men Employed					Number of Months in Operation
	Under- ground	Open Pit		Under- ground	Surface	Open Pit		Total	
						Mining	Stripping		
Monica.....	73,069		•	47.0	14.0			61.0	12
Pettit.....	162,879			209.0	18.0			227.0	12
Onondaga.....	6,847			10.0	8.0			18.0	5
Schley.....	147,219			59.0	31.0			90.0	5
Union.....	83,508	211,591	48,356	23.0	27.0	66.0	20.0	136.0	12
Grant.....		575,951	452,516	2.0	3.0	94.0	74.0	173.0	11
Longyear.....		1,622	695,558		1.0		189.0	190.00	11
Laetona.....	256,295	256,014	31,740	242.0	54.0	19.0	7.0	322.0	12
Lincoln.....	205,545			152.0	74.0			226.0	12
Meadow-Fowler.....	73,695			121.0	31.0			152.0	12
Croton.....	35,802			28.0	19.0			47.0	5
Hanna.....	6,823	76,785		20.0		38.0		58.0	12
Brunt.....		177,903	196,948			151.0	23.0	174.0	12
Silver.....		280,558	152,579		6.0	72.0	40.0	137.0	8
La Belle.....	10,038			14.0				20.0	4
Miller.....	376,318			240.0	40.0			280.0	12
Wacoatah.....		*43,454				1.0		1.0	
Wenango.....	112,887	718,929	36,789	129.0	34.0	151.0		314.0	12
Webb.....	134,710			181.0	28.0			209.0	4
Whiteside.....	163,889			182.0	66.0			248.0	8
Grace.....	85,071			89.0	10.0			99.0	7
Laura.....	198,278			111.0	18.0			129.0	12
Dean.....			1,556,200				217.0	217.0	12
Dunwoody.....			1,980,615				248.5	248.5	10
Smith.....			149,928				64.0	64.0	9
Nationing.....		1,447,578	1,607,493			108.0	396.0	414.0	12
Susquehanna.....		858,557	2,265,432	17.0	33.0	125.0	250.0	425.0	8
Troquois.....				3.0	5.0			8.0	
Morton.....	16,311			75.0	29.0			104.0	12
Woodbridge.....	203,004			174.0	30.0			204.0	7
Biwabik.....		285,717	33,288			69.0	8.0	77.0	6
Commodore.....	131	493,973		4.4		81.7		86.1	8
Stevenson.....	114,290	365,788	60,331	100.0	15.0	135.0	16.0	305.0	12

TABLE IV-B—SHIPMENTS OF IRON ORE, NUMBER OF CUBIC YARDS OF STRIPPING REMOVED AND NUMBER OF MEN EMPLOYED
MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914—Continued

Mines	Shipments, Tons		Cubic Yards Stripping Removed	Number of Men Employed				Number of Months in Operation	
	Under- ground	Open Pit		Under- ground	Surface	Open Pit			
						Mining	Stripping		
Adriatic.....	98,790	91,512	166,146	108.0	28.0	35.0	45.0	136.0	12
Morrow.....		101,814				30.0		80.0	8
Perkins.....		73,782				37.0		30.0	6
Cyprus.....								37.0	12
Madrid.....	442,120			50.0	6.0			56.0	6
Maderia.....	1,611				6.0			6.0	2
Seville.....	22,024			30.0	4.0			34.0	5
Section 17.....	2,160			12.0	3.0			15.0	1
Allan.....	46,715			18.0	6.0			24.0	11
Knox.....	§			40.0	10.0			50.0	7
Agnew.....		107,958				40.0		40.0	8
Helmer.....		121,653				79.0		81.0	4
Ruddy.....	29,449			2.0				3.0	12
Cavour.....	81,342			30.0	9.0			39.0	12
Williams.....	60,978			20.0	20.0			114.0	12
Holland.....	§			50.0				70.0	12
Chandler.....	25,312			20.0	8.0			28.0	12
South Chandler.....	§			93.0	13.0			106.0	12
				40.0	9.0			49.0	11
Total.....	9,842,629	17,566,812	14,696,260	8,064.9	2,739.9	3,267.4	2,538.1	16,600.3	.....

*Loaded by M. A. Hanna & Co.

†Shipped from stock pile.

§Ore stock piled.

¶Shipped by A. B. Coats.

The	The	The	The	The	The	The	The
The	The	The	The	The	The	The	The
The	The	The	The	The	The	The	The
The	The	The	The	The	The	The	The
The	The	The	The	The	The	The	The
The	The	The	The	The	The	The	The
The	The	The	The	The	The	The	The

DEPARTMENT OF LABOR

161

Operating	Not Operating	Location	Name of Mining Company	General Superintendent	Superintendent
Hartley		Hibbing, Minn.	Oliver Iron Mining Co.	W. J. West	W. F. Pellenz
Higgins		Chisholm, Minn.	Oliver Iron Mining Co.	A. J. Sullivan	
Hobart		Kinney, Minn.	Swallow & Hopkins Co.	A. S. Ryburn	
		Virginia, Minn.	Oliver Iron Mining Co.	M. H. Godfrey	
		Gilbert, Minn.	M. A. Hanna & Co.	C. E. Hendrick	
		Biwabik, Minn.	Redwood Mining Co.	W. P. Chinn	Arthur Faragher
		Aurora, Minn.	Pickands-Mather & Co.	W. J. West	A. A. Mart
		Hibbing, Minn.	Oliver Iron Mining Co.		Fred R. Mort
		Mt. Iron, Minn.	Rogers Iron Mining Co.		James Hawkins, Capt.
		Kinney, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	F. H. Cash
		Mesaba, Minn.	Graham Iron Co.		J. C. Richards
		Gilbert, Minn.	Pitt Iron Mining Co.	C. E. Moore	
		Virginia, Minn.	Yawles Properties	W. J. Sedlar	H. J. Orton
		Hibbing, Minn.	Inland Steel Co.	William Wearne	E. S. Tillinghast
		Hibbing, Minn.	Inter State Iron Co.	Mark Elliott	L. C. Mitchell
		Chisholm, Minn.	Oliver Iron Mining Co.	A. J. Sullivan	
		Virginia, Minn.	Inter State Iron Co.	Mark Elliott	A. L. Gerry
		Hibbing, Minn.	Inter State Iron Co.	Mark Elliott	Wm. Carmichael
McKinley		McKinley, Minn.	Oliver Iron Mining Co.	W. J. West	W. F. Pellenz, Jr.
		Hibbing, Minn.	Eureka Ore Co.	H. O. Johnson	
Madrid		Virginia, Minn.	Mahoning Ore & Steel Co.	J. C. Agnew	
		Hibbing, Minn.	Pickands-Mather & Co.	W. P. Chinn	
Malta		Virginia, Minn.	Oliver Iron Mining Co.	M. H. Godfrey	
Mariska		Gilbert, Minn.	Murphy, Dorr, Flynn, Estates	W. R. Van Slyke	
		Virginia, Minn.	Oliver Iron Mining Co.	R. J. Mitchell	
		Aurora, Minn.	Pitt Iron Mining Co.	C. E. Moore	Joseph Roskilly
		Virginia, Minn.	Pickands-Mather & Co.	W. P. Chinn	J. A. Stewart
		Aurora, Minn.	Pickands-Mather & Co.	W. P. Chinn	P. S. Kitchan
		Biwabik, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	L. C. Mitchell
		Chisholm, Minn.	Oliver Iron Mining Co.	W. J. West	John McDowell
		Hibbing, Minn.	Oliver Iron Mining Co.	W. J. West	
Morris		Hibbing, Minn.	Pearson Mining Co.	R. M. Sellwood	
Morrow		Eveleth, Minn.	Oliver Iron Mining Co.	M. H. Godfrey	
Mountain Iron		Mt. Iron, Minn.	Oliver Iron Mining Co.	R. A. Middlemiss	L. C. Mitchell
		Hibbing, Minn.	Morton Mining Co.	A. J. Sullivan	
Nassau		Chisholm, Minn.	Oliver Iron Mining Co.	Mark Elliott	
		Hibbing, Minn.	Inter State Iron Co.	R. J. Mitchell	William White
Onondaga		Virginia, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	
		Virginia, Minn.	Republic Iron Mining Co.	W. J. West	
Perkins		Hibbing, Minn.	Perkins Mining Co.	R. M. Sellwood	
Pettit		Aurora, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	D. T. Gain
Prindle		Gilbert, Minn.	Oliver Iron Mining Co.	M. H. Godfrey	
		Virginia, Minn.			

TABLE IV-A—MINE SHIPMENTS FROM ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1912, TO JUNE 30th, 1913

Mines	Shipments		Cubic Yards Stripping Removed	Number of Men Employed				Months Operated	
	Under- ground	Open Pit		Under- ground	Surface	Open Pit			Total
						Mining	Stripping		
Oliver Iron Mining Co.—									
Pioneer.....	678,385			254	113			367	
Savoy.....	78,910			45	5			50	
Sibley.....	328,045			97	55			152	
Zenith.....	480,465			337	29			366	
Soudan.....	95,275			98	47			145	
Graham.....			363,043	8	31		83	122	
Vivian.....				15	22			37	
Burt.....	26,025	166,138		41		54		95	
Sellers.....		166,889				25		48	
Morris.....						8		8	
Winfred.....							23	48	
Hull Rust.....	107,045			30	13			43	
Day.....		2,640,899	120,806			225	13	238	
Penobscot.....									
Dale.....	11,696	902,754		7		65		72	
Uno.....	54,462	1,756,809		45		140		185	
Harold.....	169,178			118	40			158	
Mace.....	144,207			65	32			97	
Clark.....	499,776			192	60			252	
Glen.....	15			6				6	
Leonard.....	543,360	1,476,610	108,559	349	68	196	8	621	
Myers.....	82,048			38	23			61	
Pillsbury.....									
Chisholm.....	626,046			301	84			385	
Monroe-Tener.....	127,406		371,668	119	71		92	282	
Hartley.....						4	1	5	
St. Clair.....					1			1	
Adams.....	292,317	923,879		188	116	121	111	536	
Spruce.....	696,019		360,174	349	94			443	
Auburn.....									
Norman.....	446,141								
Fayal.....	442,637	163,742		242	198			440	
Genoa.....	87,132	1,245,764	109,541	379	154	32		565	
Gilbert.....				79	37	200	20	336	
Duluth.....	167,747			119	38			157	
McKinley.....					2			2	

TABLE IV-A—MINE SHIPMENTS FROM ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1912, TO June 30th, 1913—Continued

Mines	Shipments		Cubic Yards Stripping Removed	Number of Men Employed				Months Operated	
	Under- ground	Open Pit		Under- ground	Surface	Open Pit			Total
						Mining	Stripping		
Sauntry-Alpena	369,036	821,632	141,026	278	69	484	31	862	12
Higgins				2	3			5	
Mountain Iron						2		2	
Stephens						2		2	
Missabe Mountain	5,592	113,643				10		10	3
Pickands, Mather & Co.— Mohawk	166,607			137	29			166	12
Bangor	131,228			114	37			151	12
Corsica	250,885			152	28			180	12
Elba	143,746			107	43			150	12
Malta	9,633			54	19			73	12
Troy	17,578			48	22			70	12
Minorea	68,442			98	30			128	10
Yawkey	24,939			46	14			60	7
Virginia	252,715					72		72	8
Hudson	219,508			30	8	38		76	8
Scranston	240,073			175	47			222	12
Utica	73,702	230,240	238,917	56	17	57	81	211	12
Albany		292,159	60,221	42		31	104	177	12
Republic Iron & Steel Co.— Union		297,553	161,990	47	16	32	51	146	12
Franklin	51,694			36	22			58	12
Onondaga				11	10			21	6
Bessemer No. 3	37,544				10			10	
Victoria									
Bessemer No. 4	90,388				10				
Monica	74,184			36	14			50	12
Wills									
Nariska									
Pettit	149,751			114	19			133	
Schley	166,032			133	87			222	12
Kinney		491,286	286,558			83	96	179	8
Mahoning Ore & Steel Co.— Mahoning		1,600,226	1,130,430			145	197	342	12
Inter State Iron Co.— Leetonia	214,817	177,712		127	71	30		228	12

TABLE IV-A—MINE SHIPMENTS FROM ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1912, TO JUNE 30th, 1913—Continued.

Mines	Shipments				Cubic Yards Stripping Removed	Number of Men Employed				Total	Months Operated
	Under- ground	Open Pit	Under- ground	Surface		Open Pit					
						Mining	Stripping				
Longyear.						1		190	191	12	
Grant.		511,734		6		22		98	138	8	
Lincoln.	157,740			136		63	32		199	12	
Meadow.	16,700			21		4			25	12	
Fowler.	176,265			72		21			98	12	
Nassau.											
Columbia.											
The Shenango Furnace Co.—											
Shenango.	192,848	609,881	1,110,007	203		22	68	134	427	12	
Webb.	239,286			126		23			149	12	
Whiteside.	149,939			127		26			153	12	
Pitt Iron Mining Co.—											
Miller.	352,350			230		38			268	12	
La Belle.	3,776			8		6			14	12	
Wacootah.		129,073					45		45	4	
Inland Steel Co.—											
Laura.	287,881			160		32			192	12	
Grace.	106,093			85		20			105	12	
Corrigan, McKinney & Co.—											
Stevenson.	199,231	565,290		68		15	145		228	12	
Commodore.		602,747	77,415	4			93		97	8	
M. A. Hanna & Co.—											
Brunt.		248,811	231,278				75	102	177	10	
Hanna.	8,416	152,011	6,316	15			35		50	9	
Croxton.	88,431			65		10			75	12	
Sliver.	37,111	293,520	244,026	75		15	75	73	238	8	
Hobart.											
Larkins—from stockpile.	63,470					15			15		
Knox—from stockpile.	22,586					15			15		
Roberts—from stockpile.	10,101			50		15			15		
Allen.	6,659			4		2	24		65	4	
Agnew.		56,436							30	3	
Adriatic.	97,897			86		19			105	12	
Alberta.	4,881			25		7			32	6	
Riwabik.		312,000	100,000				90	50	140	7	
Cavour.	71,256			120		20			140	12	

TABLE IV-A—MINE SHIPMENTS FROM ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1912, TO JUNE 30th, 1913—Continued

Mines	Shipments		Cubic Yards Stripping Removed	Number of Men Employed				Months Operated	
	Under- ground	Open Pit		Under- ground	Surface	Open Pit			Total
						Mining	Stripping		
Cypress.....	75,773	96,745		79	11	47		47	7
Chandler.....									12
Dean.....			900,000					182	90
Dunwoody.....			1,695,442					275	8
Helmer.....		25,642	72,442	9		30	50		12
Iroquois.....	113,644			100	35				12
Larkins.....	7,961			11	6				10
Kellogg.....	92,982			98	21				17
Knox.....	66,791			29	11				12
Eaton.....				8	4				6
Maderia.....	15,000			10	6				12
Madrid.....	74,000			25	8				3
Morrow.....			158,895				108		16
Morton.....	19,626			86	32				3
Perkins.....		89,472				34			12
Pearce.....	113,729			7	29				7
Roberts.....	11,343			15	5				34
Susquehanna.....	88,072	815,298	1,122,860	27	41	105	205		5
Smith.....			299,612						12
Section 17.....	14,485			24	6				12
Ruddy.....	32,600			44	8				8
Woodbridge.....	99,092			130	37				12
White Iron Lake (Euclid).....	16,885			16	4				12
Williams.....	43,425			58	12				12
Vermillion and Mesaba.....									12
Iron Co.'s Exploration.....				13	13				12
North American, exploration.....				14	12				12
North American, extension.....				14	12				12
Total.....	11,651,733	18,449,718	10,812,529	7,867	2,699	2,954	2,528	16,048	

TABLE IV-B—SHIPMENTS OF IRON ORE, NUMBER OF CUBIC YARDS OF STRIPPING REMOVED AND NUMBER OF MEN EMPLOYED,
MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914

Mines	Shipments, Tons		Cubic Yards Stripping Removed	Number of Men Employed					Number of Months in Operation
	Under- ground	Open Pit		Under- ground	Surface	Open Pit		Total	
						Mining	Stripping		
Adams.....	200,508	1,178,526	301,617	138.3	45.0	147.8	178.3	598.4	12
Burt.....	87,220	420,205		38.2	121.2			159.4	12
Clark.....	323,370			193.6	52.4			246.0	12
Chisholm..	590,208			300.9	73.5			376.4	12
Carson Lake.						1.6		1.6	5
Dale.....		673,600				137.9		137.9	12
Duncan.....					21.0			21.0	6
Duluth.....					1.1			1.1	5
Deacon..					15.6			19.9	12
Fayal.....	507,471	620,372	207,855	4.3	160.1	72.8	46.0	705.2	12
Gilbert.....	43,901			12.4	13.5			27.9	12
Genoa.....	271,369	672,053	55,088	181.9	77.8	117.9		377.6	12
Glen.....				1.0	4.9			5.9	12
Graham.....		194,189	311,581	32.7	61.1	40.0	72.8	203.6	12
Harold.....	54,867			102.4	34.0			136.4	12
Hull-Rust..		2,378,981	1,549,669			203.7	212.4	416.1	12
Hartley.....		7,306				10.0		10.0	12
Higgins.....				4.4	4.6			9.0	12
Leonard.....	667,914	966,420		214.2	51.8	194.0		460.0	12
Leonidas...			475,542	55.6	65.7			121.3	12
Morris.....						7.2		7.2	12
Macc.....									12
Monroe-Tener.	138,037			75.7	19.7			95.4	12
Myers.....	353,474		279,198	154.7	93.6		81.7	334.0	12
Minnewas..	21,045			43.1	26.2			69.3	12
McKinley...				4.2	17.2			21.4	9
Missabe Mountain.					1.2			1.2	12
Mountain Iron.		208,192				15.3		15.3	6
Norman.....						1.9		1.9	12
Prindle.....	283,583			178.3	43.3			221.6	6
Philbin.....			369,258				76.9	76.9	9
Sellers.....		101,181		6.7	22.9	39.0		29.6	6
Sheridan-Day			866,433				33.6	69.6	12
			163,310				6.7	63.7	5

TABLE IV-B—SHIPMENTS OF IRON ORE. NUMBER OF CUBIC YARDS OF STRIPPING REMOVED AND NUMBER OF MEN EMPLOYED
MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914—Continued

Mines	Shipments, Tons		Cubic Yards Stripping Removed	Number of men Employed					Total	Number of Months in Operati on
	Under- ground	Open Pit		Under- ground	Surface	Open Pit				
						Mining	Stripping			
St. Clair.....	372,642			393.5	2.1			2.1	12	
Sauntry-Alpena.....	492,618	1,069,650	1,069	3-2.9	93.5			489.0	12	
Shiras.....				4.2	92.0	429.4		864.3	4	
Sullivan.....				11.5	19.0			12.9	12	
Stephens.....								30.3	12	
Uno.....	59,649	1,555,876	25,119	37.2	38.5			211.5	12	
Vivian.....	14,829			63.9	18.8	135.8		82.7	12	
Weed.....				7.4	16.5			73.9	6	
Winifred.....	14,920			20.7	11.7			32.4	12	
Wanless.....				8.7	28.8			37.5	10	
Crescent (trespass)	1,022								12	
Pioneer.....	402,779			271.8	114.0			385.8	12	
Savoy.....	74,859			46.0	5.5			51.5	12	
Sibley.....	174,742			110.7	56.3			169.0	12	
Soudan.....	76,510			92.8	51.7			144.5	12	
Zenith.....	400,580			343.8	29.8			373.6	12	
Albany.....	233,043	31,435	332,086	36.2	61.3	63.4	98.7	259.6	10	
Seranton.....	119,770			186.4	42.5			228.9	6	
Utica.....	88,689	194,994	31,600	65.8	18.8	77.2	85.5	247.5	12	
Bangor.....	124,621			136.9	41.5			178.4	12	
Belgrade.....	43,747			103.9	39.2			143.1	12	
Corisca.....	158,827			131.9	23.8			155.7	12	
Elba.....	94,470			116.7	37.2			153.9	12	
Hudson.....		204,202				59.6		59.6	4	
Mohawk.....	157,908			103.6	25.8			129.4	12	
Minorea.....	65,147			113.5	31.5			145.0	12	
Malta.....	84,081			50.2	17.0			67.2	7	
Troy.....	53,169			49.6	17.8			67.4	4	
Virginia.....		335,676				111.6		111.6	6	
Yawkey.....	15,940			44.5	8.5			53.0	4	
Franklin.....	36,251			45.0	17.0			62.0	12	
Kinney.....		352,805	290,225			69.0	84.0	153.0	5	

TABLE IV-B.—SHIPMENTS OF IRON ORE, NUMBER OF CUBIC YARDS OF STRIPPING REMOVED AND NUMBER OF MEN EMPLOYED.
MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914—Continued

Mines	Shipments, Tons		Cubic Yards Stripping Removed	Number of Men Employed					Number of Months in Operation
	Under-ground	Open Pit		Under-ground	Surface	Open Pit		Total	
						Mining	Stripping		
Monica.....	73,069			47.0	14.0			61.0	12
Pettit.....	162,879			209.0	18.0			227.0	12
Onondaga.....	6,847			10.0	8.0			18.0	5
Schley.....	147,219			59.0	31.0			90.0	12
Union.....	83,508	211,591	48,356	23.0	27.0	66.0	20.0	136.0	12
Grant.....		575,951	452,516	2.0	3.0	94.0	74.0	173.0	11
Longyear.....		11,622	695,558		1.0		196.0	197.0	12
Leetonia.....	256,295	256,014	31,740	242.0	54.0	19.0	7.0	322.0	12
Lincoln.....	205,545			152.0	74.0			226.0	12
Meadow-Fowler.....	73,695			121.0	31.0			152.0	12
Croxton.....	35,802			28.0	19.0			47.0	5
Hanna.....	6,823	76,785		20.0		38.0		58.0	12
Brunt.....		177,903	196,948			151.0	23.0	174.0	12
Silver.....		280,558	152,579		25.0	72.0	40.0	137.0	8
La Belle.....	10,038			14.0	6.0			20.0	4
Miller.....	376,318			240.0	40.0			280.0	12
Wacootah.....		*43,454				1.0		1.0	1
Shenango.....	112,887	718,929	36,789	129.0	34.0	151.0		314.0	12
Webb.....	134,710			181.0	28.0			209.0	4
Whiteside.....	163,889			182.0	66.0			248.0	8
Grace.....	85,071			89.0	10.0			99.0	7
Laura.....	198,278			111.0	18.0			129.0	12
Dean.....			1,556,200				217.0	217.0	12
Dunwoody.....			1,980,615				248.5	248.5	10
Smith.....			149,628				64.0	64.0	9
Mahoning.....		1,447,578	1,607,493			108.0	306.0	414.0	12
Susquehanna.....		858,657	2,265,432	17.0	33.0	125.0	250.0	425.0	8
Iroquois.....				3.0	5.0			8.0	8
Morton.....	16,311			75.0	29.0			104.0	12
Woodbridge.....	203,004			174.0	30.0			204.0	7
Biwabik.....		285,717	33,288			69.0	8.0	77.0	6
Commodore.....	131	493,673		4.4		81.7		86.1	8
Stevenson.....	114,299	365,788	60,331	199.0	15.0	135.0	10.0	365.0	12

TABLE IV-B—SHIPMENTS OF IRON ORE, NUMBER OF CUBIC YARDS OF STRIPPING REMOVED AND NUMBER OF MEN EMPLOYED
MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914—Continued

Mines	Shipments, Tons		Cubic Yards Stripping Removed	Number of Men Employed				Number of Months in Operation	
	Under- ground	Open Pit		Under- ground	Surface	Open Pit			
						Mining	Stripping		
Adriatic.....	98,790		166,146	108.0	28.0			136.0	12
Morrow.....		91,512				35.0		45.0	8
Perkins.....		101,814				30.0			6
Cyprus.....		73,782				37.0			12
Madrid.....	442,120			50.0	6.0				6
Maderia.....	1,611				6.0				2
Seville.....	22,024			30.0	4.0				6
Section 17.....	2,160			12.0	3.0				5
Allan.....	46,715			18.0	6.0				1
Knox.....	§			40.0	10.0				17
Agnew.....		107,958				40.0			8
Helmer.....		121,653				79.0			4
Ruddy.....	29,449			2.0					12
Cavour.....	81,342			30.0	9.0				12
Williams.....	60,978			50.0	20.0				12
Holland.....	§			20.0	8.0				12
Chandler.....	25,312			93.0	13.0				12
South Chandler.....	§			40.0	9.0				11
Total.....	9,842,629	17,566,812	14,606,260	8,064.9	2,739.9	3,267.4	2,538.1	16,600.3	.....

*Loaded by M. A. Hanna & Co.

†Shipped from stock pile.

§Ore stock piled.

‡Shipped by A. B. Coats.

TABLE V—MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914

Mines		Location	Name of Mining Company	General Superintendent	Superintendent
Operating	Not Operating				
Adams.....	Eveleth, Minn.	Oliver Iron Mining Co.	R. J. Mitchell	T. H. Davey
Adriatic.....	Mesaba, Minn.	Adriatic Mining Co.	R. M. Sellwood	William Mudge
Agnew.....	Hibbing, Minn.	Wisconsin Steel Co.	.....	Martin T. Fehdells
Albany.....	Hibbing, Minn.	Pickands-Mather & Co.	W. P. Chinn	Robert Murray
Bangor.....	Auburn	Virginia, Minn.	Pickands-Mather & Co.	R. J. Mitchell	.....
Belgrade.....	Biwabik, Minn.	Pickands-Mather & Co.	W. P. Chinn	J. A. Stewart
Biwabik.....	Bessemer	Virginia, Minn.	Pickands-Mather & Co.	W. P. Chinn	.....
Brunt.....	Biwabik, Minn.	Yawkey Properties	W. J. Schuize	.....
Burt.....	Biwabik, Minn.	Yawkey Properties	W. J. Schuize	.....
Carbur.....	Mt. Iron, Minn.	M. A. Hanna & Co.	C. E. Hendricks	G. M. Cannon
Chisholm.....	Hibbing, Minn.	Oliver Iron Mining Co.	W. J. West	John McDowell
Clark.....	Kanab, Minn.	Cassart Mining Co.	W. J. West	.....
Commodore.....	Chisholm, Minn.	Oliver Iron Mining Co.	C. H. Clypool	L. C. Mitchell
Carson Lake.....	Chisholm, Minn.	Oliver Iron Mining Co.	A. J. Sullivan	L. C. Mitchell
Coxsack.....	Virginia, Minn.	Interstate Iron Co.	Mark Elliott	.....
Crook.....	Hibbing, Minn.	Corrigan, McKimney & Co.	W. J. West	E. D. McNeil
Cypress.....	Hibbing, Minn.	Corrigan, McKimney & Co.	W. J. West	.....
Candler.....	Chisholm, Minn.	Pickands-Mather & Co.	C. E. Hendricks	G. M. Cannon
Dale.....	Hibbing, Minn.	M. A. Hanna & Co.	R. M. Sellwood	William Gardner
*Dean.....	Chisholm, Minn.	Cypress Mining Co.	John Costin, Mgr.	R. J. Combs
Duncan.....	Hibbing, Minn.	Chadler Mining Co.	W. J. West	W. F. Pelenz
†Dunwoody.....	Elk, Minn.	Oliver Iron Mining Co.	Earl E. Hunter	.....
Deacon.....	Buhl, Minn.	Oliver Iron Mining Co.	A. J. Sullivan	.....
Elba.....	Chisholm, Minn.	Oliver Iron Mining Co.	W. J. West	.....
Fayal.....	Chisholm, Minn.	Oliver Iron Mining Co.	Earl E. Hunter	.....
Fowler.....	Chisholm, Minn.	Oliver Iron Mining Co.	W. J. West	.....
Franklin.....	Virginia, Minn.	Arthur Mining Iron Co.	Earl E. Hunter	.....
Genoa.....	Chisholm, Minn.	Oliver Iron Mining Co.	M. H. Godfrey	.....
Graham.....	Buhl, Minn.	Oliver Iron Mining Co.	Samuel Hoar	.....
Grace.....	Chisholm, Minn.	Pickands-Mather & Co.	W. P. Chinn	M. S. Kingston
*Grant.....	Chisholm, Minn.	Higgins Company	R. R. Teszora	G. H. Dorrner
Hanna.....	Eveleth, Minn.	Oliver Iron Mining Co.	Mark Elliott	J. J. Hudon
	Aurora, Minn.	Republic Iron & Steel Co.	Thos. Flanagan	William White
	Virginia, Minn.	M. A. Hanna & Co.	C. E. Hendricks	.....
	Buhl, Minn.	Oliver Iron Mining Co.	R. R. Teszora	H. S. Sherman
	Gilbert, Minn.	Oliver Iron Mining Co.	R. R. Teszora	H. S. Sherman
	Glen.....	Oliver Iron Mining Co.	A. J. Sullivan	L. C. Mitchell
	Mesaba, Minn.	Oliver Iron Mining Co.	W. J. Schuize	.....
	Chisholm, Minn.	Inland Steel Co.	W. J. Schuize	H. J. Horton
	Buhl, Minn.	Interstate Iron Co.	W. J. Schuize	W. B. Rosenberger
	Mt. Iron, Minn.	M. A. Hanna & Co.	Mark Elliott	G. M. Cannon
			C. E. Hendricks	

TABLE V—MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914—Continued

Mines		Location	Name of Mining Company	General Superintendent	Superintendent
Operating	Not Operating				
Harold	Hartley	Hibbing, Minn.	Oliver Iron Mining Co.	W. J. West	W. F. Pellenz
Helmer	Higgins	Chisholm, Minn.	Oliver Iron Mining Co.	A. J. Sullivan	
	Hobart	Kinney, Minn.	Swallow & Hopkins Co.	A. S. Rayburn	
		Virginia, Minn.	Oliver Iron Mining Co.	M. H. Godfrey	
Holland		Bowditch, Minn.	M. A. Hanna & Co.	C. E. Hendrick	Arthur Faragher
Hudson		Blawie, Minn.	Redwood Mining Co.	W. P. Chinn	J. A. Stewart
Hull-Rust		Aurora, Minn.	Pickands-Mather & Co.	W. J. West	Fred R. Mott
		Hibbing, Minn.	Oliver Iron Mining Co.	Thos. Flannigan	James Hawkins, Capt.
Kinney		Mt. Iron, Minn.	Rogers Iron Mining Co.		F. H. Cash
Knox		Kinney, Minn.	Republic Iron & Steel Co.		J. C. Richards
La Belle		Missabe, Minn.	Graham Iron Co.	C. E. Moore	
Laura		Gilbert, Minn.	Yale Iron Mining Co.	W. J. West	
Lectonia		Virginia, Minn.	Yale Properties	W. J. Schaeze	
Leonard		Hibbing, Minn.	Inland Steel Co.	William W. Earne	H. J. Orton
Lincoln		Hibbing, Minn.	Oliver State Iron Co.	Mark Elliott	E. S. Tillinghast
*Longyear		Chisholm, Minn.	Oliver Iron Mining Co.	A. J. Sullivan	L. C. Mitchell
		Virginia, Minn.	Inter State Iron Co.	Mark Elliott	
		Hibbing, Minn.	Inter State Iron Co.	Mark Elliott	
McKinley		McKinley, Minn.	Oliver Iron Mining Co.		A. L. Gerry
Madrid		Hibbing, Minn.	Oliver Iron Mining Co.	W. J. West	Wm Carmichael
		Virginia, Minn.	Emeka Iron Co.	I. C. Johnson	W. F. Pellenz, Jr.
Mahoning		Virginia, Minn.	Marathon Oils & Steel Co.	H. C. Agnew	
		Gilbert, Minn.	Pickands-Mather & Co.	W. P. Chinn	
Malta		Missabe Mountain	Oliver Iron Mining Co.	M. H. Godfrey	
Mariska		Gilbert, Minn.	Murphy, Doort, Flynn, Estates	W. R. Van Slyke	
		Virginia, Minn.	Pitt Iron Mining Co.	R. F. Mitchell	
		Aurora, Minn.	Pitt Iron Mining Co.	C. E. Moore	Joseph Roskilly
		Broadbik, Minn.	Pickands-Mather & Co.	W. P. Chinn	J. A. Stewart
		Broadbik, Minn.	Pickands-Mather & Co.	W. P. Chinn	P. S. Kitzman
		Hibbing, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	L. C. Mitchell
		Chisholm, Minn.	Oliver Iron Mining Co.	A. J. Sullivan	John McDowell
Morris		Hibbing, Minn.	Oliver Iron Mining Co.	W. J. West	
Morrow		Excelsior, Minn.	Pearson Mining Co.	R. M. Sellwood	
Mountain Iron		Excelsior, Minn.	Moran Mining Co.	M. H. Godfrey	
		Hibbing, Minn.	Oliver Iron Mining Co.	B. A. Middlemiss	L. C. Mitchell
		Chisholm, Minn.	Inter State Iron Co.	Mark Elliott	
Nassau		Hibbing, Minn.	Oliver Iron Mining Co.	R. J. Mitchell	William White
Onondaga		Virginia, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	
		Hibbing, Minn.	Oliver Iron Mining Co.	W. J. West	
Perkins		Virginia, Minn.	Perkins Mining Co.	R. M. Sellwood	
Pettit		Aurora, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	D. T. Gain
Prindle		Gilbert, Minn.	Republic Iron & Steel Co.	M. H. Godfrey	
		Virginia, Minn.	Oliver Iron Mining Co.		

TABLE V—MINES OF ST. LOUIS COUNTY, MINNESOTA, YEAR JULY 1st, 1913, TO JUNE 30th, 1914—Continued

Mines		Location	Name of Mining Company	General Superintendent	Superintendent
Operating	Not Operating				
Ruddy	Pillsbury	Chisholm, Minn.	Oliver Iron Mining Co.	A. J. Sullivan.	E. L. Foreman
Sauntry-Alpena	Roberts.	McKinley, Minn.	Pettit & Robinson, Owners.	C. E. Moore.	Robert Murray
		Biwabik, Minn.	Ruddy Mining Co.	M. H. Godfrey.	
		Virginia, Minn.	Oliver Iron Mining Co.	W. P. Chinn.	
Sheridan-Day		Hibbing, Minn.	Pickands-Mather & Co.	W. J. West.	
		Gilbert, Minn.	Oliver Iron Mining Co.	Thos. Flannigan	D. T. Cain
Sellers	Schley	Hibbing, Minn.	Republic Iron & Steel Co.	W. J. West.	John McDowell
Shiras		Buhl, Minn.	Oliver Iron Mining Co.	M. H. Godfrey.	
Shenango		Kinney, Minn.	A. B. Coats.	A. B. Coats.	R. Hodge.
Sullivan		Chisholm, Minn.	The Shenango Furnace Co.	E. J. Maney	
Spruce		Virginia, Minn.	Oliver Iron Mining Co.	M. H. Godfrey.	T. H. Davey
		Eveleth, Minn.	Oliver Iron Mining Co.	R. J. Mitchell.	
		Colby, Minn.	Oliver Iron Mining Co.		
Stephens		Hibbing, Minn.	Arthur Iron Mining Co.	Earl E. Hunner	
Smith		Mesaba, Minn.	Spring Mining Co.	G. A. St. Clair, mgr.	
Spring		Chisholm, Minn.	Oliver Iron Mining Co.	A. J. Sullivan.	
St. Clair		Aurora, Minn.	Corrigan-McKinney & Co.	G. E. Harrison.	
St. James		Hibbing, Minn.	Rogers-Brown Iron Co.	W. C. Agnew, mgr.	John H. Burt
Stevenson		Ely, Minn.	B. M. Pattison, owner.		
*Susquehanna.		Eveleth, Minn.	Pickands-Mather & Co.	W. P. Chinn.	William White
South Chandler		Virginia, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	W. F. Pellens, Jr.
Union		Hibbing, Minn.	Oliver Iron Mining Co.	W. J. West.	Robert Murray
Uno		Hibbing, Minn.	Pickands-Mather & Co.	W. P. Chinn.	William White
Utica		Virginia, Minn.	Republic Iron & Steel Co.	Thos. Flannigan	
		Eveleth, Minn.	Pickands-Mather & Co.	W. P. Chinn.	
Vivian		Mesaba, Minn.	Oliver Iron Mining Co.		Wm. Carmichael
Weed		Mtn. Iron, Minn.	Oliver Iron Mining Co.		Wm. Carmichael
		Webb	Pitt Iron Mining Co.	C. E. Moore	
		Whiteside	The Shenango Furnace Co.	E. J. Maney	
		Woodbridge.	The Shenango Furnace Co.	E. J. Maney	A. J. Loomis
		Wills.	The Fort Henry Mining Co.		R. A. Angst.
			Pettit & Robinson, owners.		G. A. Richards
Williams		Biwabik, Minn.	Thomas Furnace Co.		
Wanless		Buhl, Minn.	Oliver Iron Mining Co.	M. H. Godfrey.	
		Buhl, Minn.	Yawkey Properties	W. J. Schultz.	M. E. Richards
Allan		Virginia, Minn.	Morris Iron Co.		
Pioneer		Ely, Minn.	Oliver Iron Mining Co.	Charles Trezona.	
Savoy		Ely, Minn.	Oliver Iron Mining Co.	Charles Trezona.	
Sibley		Ely, Minn.	Oliver Iron Mining Co.	Charles Trezona.	
Sibley		Ely, Minn.	Oliver Iron Mining Co.	Charles Trezona.	
Zenith		Ely, Minn.	Oliver Iron Mining Co.	Charles Trezona.	
Soudan		Tower, Minn.	Oliver Iron Mining Co.	Charles Trezona.	

*Operated under contract by Butler Brothers.

†Operated under contract by Winston Dear Co.

TABLE 1—SYNOPSIS OF REPORT—ITASCA COUNTY

	1913	1914
Number of mines.....	16	21
Mines operating.....	11	19
Mines shipping.....	4	13
Exploration companies drilling.....	117	56
Men employed in explorations.....	594	517
Men employed underground.....	2,001	2,010
Men employed on surface.....	2,595	2,527
Total number of men employed.....	2,595	2,527
Average wage per day.....	\$2 705	\$2 81
Number of minor accidents.....	228	214
Number of serious injuries—amputations, fractures, crushings, etc.....	38	50
Number of fatal accidents.....	8	8
Days lost by those slightly injured.....	4,328	3,847
Average loss of time in minor injuries—days.....	19	18
Total number of employes injured and killed.....	274	272
Number of fatal accidents per 1000 men employed.....	3 655	3
Number of injured and killed per 1000 men employed—all accidents.....	119	105
Tons of ore shipped.....	5,464,649	3,534,415
Tons of ore mined per fatal accident.....	683,081	441,802
Number of yards of overburden stripped.....	3,598,835	4,645,169

TABLE 2—FATAL ACCIDENTS—ITASCA COUNTY

Mine	Number		Occupation	1913	1914	Cause	1913	1914
	1913	1914						
Bennet.....	1		Driller.....	2		Cave of bank.....	2	3
Canisteo.....	3	1	Brakeman.....	2		Train ran over.....	3	1
Crosby.....		2	Mule driver.....	1		Electrocuted.....	1	
Hawkins.....	2	2	Switchtender.....	1		Fell from tram car.....	1	1
Hill.....		1	Electrician.....	1		Fell from ladder.....	1	
Pearson.....	1		Laborer.....	1		Steam shovel.....		1
St. Paul.....	1	1	Trackman.....		2	Struck by blasted rock.....		1
			Miner.....		3	Derailed car knocked into fire.....		1
			Pitman.....		1			
			Dumpman.....		1			
			Trespasser.....		1			
Total.....	8	8	Total.....	8	8	Total.....	8	8

Nationality	1913	1914
Austrian.....	2	4
American.....	2	
Croatian.....		1
Italian.....	3	1
Fin.....	1	
Montenegrin.....		2
Total.....	8	8

TABLE III.—MINING STATISTICS, ITASCA COUNTY, 1913 AND 1914

Name of Mine	Tons of Ore Shipped		Cubic Yards of Stripping Removed		Average Number of Men Employed				Average Wages Paid	
					Underground		Surface and Open Pit			
	1913	1914	1913	1914	1913	1914	1913	1914	1913	1914
Canisteo (1)	1,872,819	1,004,778			5	5	564	445	2,776	2,805
Hill (1)	1,182,802	688,588			5	5	105	66	2,938	2,955
Holman (1)	960,172	592,538			25	55	189	190	2,767	2,805
Judd (1)		103,495	392,436	124,838			78	51	2,746	2,750
Arturina				226,712				49		2,739
Mississippi (1)	238,333	187,332			163	65	39	26	2,183	2,831
Crosby (2)	201,411	97,728			163	69	30	25	2,590	2,770
Hawkins (2)	478,042	464,280	517,540	339,458			240	190	2,580	2,750
Pearson (2)	85,973	65,998			161	125	21	20	2,760	2,890
La Rue (3) (6)	214,000	110,683	33,000	355,041	3	6	43	142	2,520	2,870
Bray (2)	187,000	90,000	730,000	367,367	27	55	100	150	2,580	2,750
St. Paul	42,597		333,862	1,405,517	14		137	151	2,710	2,750
Bennett (3) (7)		87,900			10	56 (7)	238	282	2,612	2,650
John Jr. (2)	1,500	15,000	44,000	361,176	18	24	6	8	2,500	2,600
Quinn-Harrison (2)		26,089					102	104	2,850	3,120
Alexandria (4)			80,432				94		2,850 (7)	2,850
Forest (4) (7)						16		31		2,960
Grand Rapids (5)						12		34		3,130
Fargo (5)						13		24		3,280
Buckeye (5)						11		22		2,750
Hill Annex (5)										
Total	5,464,649	3,534,415								2.81

(1)—Bessemer and Non-Bessemer.

(3)—Non-Bessemer.

(4)—Non-Operating.

(5)—Development work.

(6)—Shipped from stock pile.

(7)—Butler Bros. employed 94 men at Forest and 195 at Bennett in stripping in 1913. Butler's average men, at Forest 2.85, and at Bennett 2.76.

TABLE No. IV

Comparative Statement Showing Shipments of Iron Ore, Men Employed, Wages, Number Injured, etc., from Year 1909 to 1914

Year Ending	No. Mines Shipping	Tons of Ore Shipped	No. Men* Employed	Number Injured	Number Killed	Average Wage Per Day
June 30th, 1909.....	6	579,671	2,244	264	11	No record
June 30th, 1910.....	10	2,113,309	3,090	212	12	\$2.446
June 30th, 1911.....	11	3,446,094	3,060	227	7	2.575
June 30th, 1912.....	10	4,622,191	2,230	190	4	2.640
June 30th, 1913.....	11	5,464,049	2,580	266	8	2.705
June 30th, 1914.....	13	3,534,415	2,527	264	8	2.810
Totals.....		19,760,329	*2,622	1,423	50	.....

*Includes only mine employes; does not include employes with exploration companies.

TABLE No. V—EXPLORATION WORK IN ITASCA COUNTY, 1913 AND 1914

Name of Exploration Company	Number of Men		Average Wages	
	1913	1914	1913	1914
Cole & McDonald Exploration Co.....	11	.....	\$3.00	.....
Longyear & Bennett Exploration Co.....	20	.....	2.75	.....
Interstate Iron Co.....	65	.....	3.25	.....
Oliver Iron Mining Co.....	21	12	2.75	\$2.75
Duluth Drilling Co.....	.....	34	.....	3.00
Schultze Drilling Co.....	.....	10	.....	2.75

TABLE VI—MINES IN ITASCA COUNTY, MINNESOTA

Mine	Location	Fee Owners	Name of Operator	General Office	Superintendent	Address
Canisteo...	Coleraine...	Canisteo Mining Co...	Oliver Iron Mining Co.	Duluth, Minn.	H. F. Downing	Coleraine, Minn.
Hill...	Marble...	See below...	Oliver Iron Mining Co.	Duluth, Minn.	Fred Ekman (actg.)	Marble, Minn.
Arcturus...	Marble...	M. O. Coates	Oliver Iron Mining Co.	Duluth, Minn.	Fred Ekman (actg.)	Marble, Minn.
Holman...	Taconite...	See below...	Oliver Iron Mining Co.	Duluth, Minn.	W. H. Plummer	Taconite, Minn.
Judd...	Taconite...	Canisteo Mining Co.	Oliver Iron Mining Co.	Duluth, Minn.	W. H. Plummer	Taconite, Minn.
Mississippi...	Keewatin...	Mississippi Land Co.	Oliver Iron Mining Co.	Duluth, Minn.	L. R. Salsich	Coleraine, Minn.
Crosby...	Nashauk...	Mississippi Land Co.	Cleveland-Cliffs Iron Co.	Cleveland, O.	W. J. West	Hibbing, Minn.
Hawkins...	Nashauk...	Mississippi Land Co.	Pearson Mining Co.	Chicago, Ill.	Max H. Barber	Nashauk, Minn.
Pearson...	Nashauk...	Mississippi Land Co.	La Rue Mining Co.	Duluth, Minn.	B. W. Batchelder	Nashauk, Minn.
La Rue...	Nashauk...	Mississippi Land Co.	Republic Iron & Steel Co.	Cleveland, O.	Frank Thomas	Nashauk, Minn.
Bray...	Keewatin...	Longyear & Bennett	Stevenson Iron Mining Co.	Youngstown, O.	H. F. Reifel	Nashauk, Minn.
St. Paul...	Keewatin...	Keewatin Mining Co.	Keewatin Mining Co.	Hibbing, Minn.	Nels Johnson	Keewatin, Minn.
Bennett...	Nashauk...	Mississippi Land Co.	John Iron Mining Co.	Marble, Minn.	G. E. Harrison	Hibbing, Minn.
John Jr...	Keewatin...	Mississippi Land Co.	Butler Bros.	St. Paul	R. L. Downing	Keewatin, Minn.
Quinn-Harrison...	Keewatin...	Sargent Land Co.	Platt Iron Mining Co.		Jno. C. McKusick	Marble, Minn.
Alexandria...	Keewatin...	Mississippi Land Co.	Platt Iron Mining Co.		E. Butler	Nashauk, Minn.
Forest...	Keewatin...	Mississippi Land Co.	Platt Iron Mining Co.		Not operating	
Grand Rapids...	Grand Rapids...	D. M. Gunn and others	Inter-State Iron Co.	Pittsburgh, Pa.	H. C. Lawrence	Grand Rapids, Minn.
Fargo...	Arbo Town...	John Lind and others	Inter-State Iron Co.	Pittsburgh, Pa.	H. C. Lawrence	Grand Rapids, Minn.
Buckeye...	Arbo Town...	State of Minnesota	Inter-State Iron Co.	Pittsburgh, Pa.	H. C. Lawrence	Grand Rapids, Minn.
Hill Annex...	Calumet...	State of Minnesota	Arthur Iron Mining Co.	St. Paul, Minn.	B. M. Conklin	Coleraine, Minn.

TABLE I.—CROW WING COUNTY.

	1913	1914
Number of mines operated	11	11
Number of mines not operated	2	5
Number of inspections made	34	108
Number of men employed; surface and stripping	452	535
Number of men employed; underground	875	519
Number of men employed, total	1,327	1,054
Number of tons of ore shipped from underground	452,450	573,380
Number of tons of ore shipped from open pit		101,136
Total number of tons of ore shipped to Dec. 31, 1913		1,119,376
Number of cubic yards of stripping removed	1,018,456	2,462,666
Number of fatal accidents	2	1
Number of tons of ore shipped for each fatal accident	226,225	674,516

TABLE II.—AVERAGE DAILY EARNINGS IN THE MINES OF CROW WING COUNTY, MINN., FOR THE YEARS ENDING JUNE 30, 1913, AND JUNE 30, 1914.

SURFACE AND OPEN PIT.

	Average Earnings per Day	
	1913.	1914.
Surface foremen	\$3.30	\$3.00
Office clerks	3.24	3.44
Timekeepers	2.60	2.25
Mining engineers	3.57	3.79
Mining engineer assistants	2.37	2.50
Chemists	3.00	3.29
Machinists	3.60	3.29
Machinist helpers	2.50	2.67
Blacksmiths	3.30	3.25
Blacksmith helpers	2.40	2.38
Carpenters	2.79	2.59
Carpenter helpers	2.42	2.50
Masons	5.00	5.00
Mason helpers	2.35	2.10
Engineers, stationary	2.75	2.70
Firemen, stationary	2.50	2.55
Electrician	3.00	2.92
Pipemen	2.78	2.64
Timber framers, contract	3.00	2.88
Timber framers, company account	2.50	2.63
Landers and dumpmen	2.42	2.30
Change housemen	2.00	2.08
Steam shovel engineers	6.25	6.42
Steam shovel cranemen	4.55	4.44
Steam shovel firemen	2.50	2.68
Steam shovel pitmen	2.43	2.44
Locomotive engineers	4.00	3.85
Locomotive firemen	2.50	2.70
Locomotive brakemen	3.00	3.00
Common labor	2.28	2.11
Track foreman .....	...	3.51
Dump foreman .....	...	3.00

UNDERGROUND.

	1913.	1914.
Mining captains	\$4.69	\$4.75
Shift bosses	3.42	3.45
Miners, contract	3.25	3.63
Miners, company account	2.88	2.91
Timbermen	2.80	3.00
Trammers, contract	2.75	2.63
Trammers, company account	2.50	2.50
Motormen	2.50	...
Brakemen	2.50	2.50
Rock pickers	2.35	...
Mine samplers	2.65	2.50
Pumpmen	2.88	2.70
Pipemen	2.88	2.55
Trackmen	3.00	3.00
Cage and skip tenders	2.50	...
Chutemen	2.50	2.50
General labor	2.55	2.57

Below is a separate report covering rates of pay of men employed by the Pittsburgh Steel Ore Co., Riverton, Minn., this being the only company using the hydraulic method of stripping.

Occupation.	Average Earn-
	ings per Day
	1914.
Pumpmen	\$3.60
Motormen	3.60
Nozzlemen	4.20
Suction tenders	3.60
Common labor	3.60

TABLE No. III.—MINE STATISTICS—CROW WING COUNTY—1913 AND 1914

Name of Mine	Open'd	Location	Manager	Superintendent	Shipments		Total Shipments to Dec. 31, 1913 (tons)	Average No. of Employees				System of Mining	Cubic Yards of Stripping/Removed	
					1913 (tons)	1914 (tons)		Surface		Underground			1913	1914
								1913	1914	1913	1914			
Kennedy	1908	Cuyuna		C. D. Tripp, Crosby, Minn.	208,243	256,914	611,109	50	30	188	109	3 Slicing and caving		
Meachem	1911	Crosby		"	None	None	None							
Armour No. 1	1911	Ironton		"	87,591	67,038	154,827	35	229			2 Slicing and caving		
Armour No. 2	1911	Crosby		"	92,988	158,989	224,777	40	35	224	149	3 Slicing and caving		
Thompson	1911			A. Weaine, Hibbing, Minn.	57,638			30	110	120		Slicing and caving, June, 1913, changed to open pit	900,000	
Barrows		Barrows		J. Nicholas, Barrows, Minn.	None	56,439		16	19	40	86	2 Slicing and caving		
Adams	1911	Oreland		C. C. Adams, Deerwood, Minn.	None	None	None	10	10	12	11	Slicing and caving		
Pennington	1913	Ironton		J. S. Lutes, Ironton	None	101,136	101,136	225	80			Open pit, steam shovel	883,456	562,663
Iron Mt.	1912	Manganese		Office, 204 First National Bank, Duluth	None	None	None	8		12				
Cuyuna-Mille Lac	1911	Ironton		E. J. W. Donahue, Lonsdale Bldg., Duluth	6,000	30,000	36,000	12	20	25	75	2 Slicing and caving		
Ironton	1912	Ironton		"	None	None	4,000	16	12	20	50	3 Slicing and caving		
Rowe	1912	Riverton		J. C. Barr, Crosby	None	None	None	10	75			Open pit, hydraulic and steam shovel	135,000	1,000,000
Brainerd-Cuyuna	1913	Brainerd		Chas. S. Jones, 715 Torrey Bldg., Duluth	None	None	None		10		8	Underground		
Duluth-Brainerd	1913	Duluth		E. J. W. Donahue, Lonsdale Bldg., Duluth	None	None	None					Slicing and caving		
Wilcox	1914	Woodrow		A. A. MacKay	None	None	None		25		15	Underground		

PART VII.

EMPLOYMENT AGENCIES.

The report on employment agencies consists of two parts. Chapter I summarized the investigations that have been made relative to the abuses connected with the operation of private employment agencies, and forms the basis of the recommendations of the labor commissioner for state regulation of the private agencies. Chapter II is the report of the state public employment offices on their work.

CHAPTER I.

PRIVATE EMPLOYMENT AGENCIES.

The investigation of private employment agencies shows a record of misrepresentation, duplicity, extortion and corruption on the part of the employment agents that calls for either drastic public regulations or the prohibition of these offices entirely.

A total of 121 complaints were made to the department involving 468 employees. Eighty-eight of these complaints were proven true. The statements of the complainants were not entirely proven in the other 34 cases, but in many of them the workmen established sufficient case against the agency to cause this department to demand the return of the employment fee.

The abuses revealed by the 121 complaints were of various kinds. In many cases the workmen found no employment at the place to which they were sent. In others they found that the conditions had been misrepresented by the agent or by the employer. A number of employers failed to fulfill the contracts as outlined on the employment ticket. Others made unwarranted deductions from the wages of the employees.

The number of complaints and the cause of complaint is shown in the following table:

Failure to secure employment.....	54
Misrepresentation by agency	20
Misrepresentation by employer	15
Unwarranted deductions from wages.....	9
Failure of employer to fulfill contract.....	11
Soliciting help without a license.....	6
Attempting to collect additional fee.....	2
Withholding baggage	1
Extortion	1
Fee splitting	1
Sending to positions without an order.....	1

Total 121

In addition to the above complaints the department was requested to secure the return of fees for two employers who failed to secure help as per contract. The fees were returned.

A Crew Coming—A Crew Going.

In many cases the workmen accused the agency of collusion with employers or their foremen or superintendents in sending men out who would be discharged as rapidly as possible in order to put others into their places. This enables the employment agency to keep collecting fees from each new man thus placed, which fees can be "split" between the employment agent and the employer or his superintendent. In several cases the statement

that they kept "one crew coming, one crew going and one crew working" was completely borne out by the facts. To prove the truth of the charge of fee splitting is, however, exceedingly difficult. As both parties to the transaction are equal in guilt it is impossible to secure the evidence from either necessary to convict the other. Circumstantial evidence frequently leads the investigator to believe the charges true when it is impossible to get conclusive proof.

Exorbitant Fees.

The fees charged foreign laborers are outrageous and extortionate. In one case the agent charged men \$4 for a job as railroad laborers at \$1.50 a day with the understanding that \$3 would be refunded if the work lasted less than ten days. Four dollars for the privilege of earning fifteen! One agent to whom the investigator remonstrated against this exorbitant fee stated: "We charge them \$4 before the first of May because it is necessary to make our harvest before that day. After that time the jobs are plentiful as a rule and the men so scarce that this fee cannot be gotten."

Misrepresentations.

The employment agents are not always the ones at fault. In a number of instances they proved that unscrupulous and irresponsible employers sent them orders and before they could send a man hired some one else and then refuse the man sent by the agency.

The agent gives the employe a memorandum ticket of employment as required by law. On the back of the ticket is printed a blank form to be signed by the employer if he does not want the man. The contract with the workman reads that the fees will not be returned unless the employer signs the ticket. When, as often happens, the employer refuses to sign, the agent refuses to refund the fee. This is the cause of much wrangling and many complaints. The agent claims he has often no means of knowing that the man was refused and no redress against the employer.

Padrones.

Another source of much trouble is the "padrone" system in vogue among the foreigners. These padrones, or "interpreters" as they are called, usually gather together a group of their countrymen who place their temporal affairs in the padrone's hands. He carries on all negotiations for them and hires them out as he pleases, with but one stipulation in the contract that he cares about, i. e., that he be given a soft berth with semi-official authority, whereby he can control the financial affairs of the men and graft upon them. Their ignorance of our language and of American ways of doing, forces them to remain loyal to him until such time as they can themselves act either as interpreters and acquire control of a few men upon whom to graft or until they become sufficiently conversant with American conditions to handle their own affairs.

Foreign Agencies.

The complaints investigated by the department were against fifty-one different agencies. Eight of these had offices in some other state. These agencies can be punished when they send men to work in this state and violate our laws but when the men are shipped through the state we have no

jurisdiction. These cases, and some in which people were sent from Minnesota to other states, emphasize the need of some federal regulation of employment agencies doing an interstate business.

There were fourteen complaints against one agency, which has offices in St. Paul, Minneapolis, Duluth and Chicago, and every one of their offices was complained against.

Municipal Regulation of Employment Offices.

Some complaints against employment offices are made to city officials instead of to the department of labor, and this scattering of the complaints prevents either the state or city from realizing the full extent of an agency's misdeeds. This is one reason why licenses are so seldom revoked. A public authority can only judge the agency by the complaints made against it. City officials know nothing of the nefarious practices of agencies at their offices in other cities and consequently underestimate their villainy. The control of private employment offices should be centralized under one office, and that must necessarily be the state department of labor. It is the only office in the state with the power and organizations adequate for the work.

Interstate Problems.

No. 1.—In the spring of 1914 three groups of Greeks complained to the department that they were hired in St. Louis, Mo., and sent to a St. Paul agency, from where they were distributed to different points on one of the northwestern railroads. Most of them claimed they were not given employment and had other grievances.

They paid the agency in St. Louis \$9.75 each, of which \$4 was for employment fee and \$5.75 for railroad fare to St. Paul. Some were refused work because they would not be split into small gangs. One group claimed they found the places filled with local labor on their arrival and that the superintendent had ordered the discharge of the local labor so they could have the job, but they refused to have this done and returned to St. Paul. These cases were scarcely disposed of when a series of complaints arrived all at once relative to the same agency. One complaint came from a workman at Nashwauk, another from a workman at Grand Rapids, and the third was made by a group of sixteen Greeks at St. Paul.

The workman at Grand Rapids complained that local labor was discriminated against in favor of foreigners; that local workmen could not secure a position unless they paid a fee of \$4 to a Duluth agency and that only that day a man in Grand Rapids was compelled to pay railroad fare to Duluth and pay a \$4 fee to secure a job as section hand in his home town.

The workman at Nashwauk complained that employes who had worked for the railroad company for five and six years were being discharged and replaced by foreigners shipped there from St. Louis. These foreigners were paying fees as high as \$9.75 for jobs. Foremen had notified all the old employes that \$4 would be deducted from their wages this year, that the foremen must send all their names to the company for the deduction and that if the men were not satisfied they could quit.

The man stated that when a new crew arrived from St. Louis many of the old employes were discharged and replaced with new men. The foremen, he said, had gone to the roadmaster and asked if they could not keep

the old employes, but were told it was impossible. He also claimed the men were poorly housed in bunk houses with broken windows, and no stoves or beds.

The sixteen Greeks who personally complained stated they were hired in St. Louis and shipped to St. Paul, whence they were shipped to Riley, Minn. They were put to work on two different sections, eight men in each crew.

They had worked three days when four of the crew were discharged. They demanded to know why they were discharged and the foreman replied they did not do good work. The men were peeling ties and were averaging about 100 ties a day. One of the men went to Kelly Lake to see the roadmaster about the discharge. The roadmaster informed him the men were discharged for the reason as stated by the foreman. When the man returned to work on Monday he was informed that another had been hired in his place and that the other man had paid \$4 for his job.

On Monday evening another man was discharged. His place was filled by hiring a man from a crew which was occupying the bunk house before these men arrived. On Wednesday four more men were discharged for the same reason as the others. Their places were filled with men from the crew in the bunk house. On Thursday three more were discharged. The same reasons were advanced and the places filled from the same idle crew. When all these men had been discharged the three remaining members of the crew quit.

The men stated that they were then working for another railroad in Minneapolis. Inquiry from their superintendent elicited the information that they were efficient workmen.

An inspector was directed to proceed to Nashwauk and vicinity and get such facts as he could relative to the situation. He reported that on April 11, the railroad had brought in a train load of Creek laborers from St. Louis and distributed them on the different sections between Superior, Wis., Grand Rapids and Virginia, Minn. Nineteen of the men were left at Nashwauk.

The railroad company usually furnishes room for these men, and the men were given to understand when they hired out at St. Louis that the section houses and bunk houses were for their use, that no others except the section foreman were occupying them at that time. When they arrived they found such was not the case, but every bunk house was overcrowded.

The quarters furnished was an old box car 10x28 and 8 feet high. Six old section men occupied this car and the new men were compelled to sleep on the floor for one night. The next day arrangements were made by the section foreman to have them occupy an old bunk house on another section. This building was 15x20x8 feet. It was divided into two rooms, one used for a kitchen and the other for sleeping quarters. Six men slept on boards thrown across wooden horses and six others slept on the floor. Several of the windows were broken and the building was dirty and insanitary. There was no stove or beds and the men had no money to buy anything with. The section foreman loaned them an old heating stove on which they did their cooking.

The inspector reports that on April 12 all the section foremen on this division were notified to discharge all their old hands. He was informed that

some of the foremen were not willing to do this, as it was impossible to do the work with all inexperienced men. One foreman went to the roadmaster and told him if he could not keep at least two experienced men he would resign. The roadmaster then allowed him to keep two men. Some of the new men were not satisfied with conditions and left for St. Paul.

The section foremen have received orders that when they employ anybody besides the men shipped from St. Louis their names must be sent in to the company so they can charge the employment agency fee of \$4.

At Alborn, Minn., there was plenty of local labor to fill the demand. The section foreman was notified to discharge his crew of eight men and employ men from St. Louis. Another foreman attempted to keep one experienced man, but on April 23 was compelled to let him go.

When the above report was received, substantiating the complaints of the men, a representative of the department called on the St. Paul employment agency. This agent informed him he had the contract to furnish all labor for this particular railroad. He said each division superintendent makes out a list of the men required on his division and reports the same to the general superintendent. These reports are then turned over to the employment agent. When he cannot employ men in St. Paul, he hires them through a St. Louis agency. A fee of \$4 is charged for each position. The wages are \$1.50 a day.

The agent admitted that when the division superintendent in one case had learned that the foreman had filled positions with local men the superintendent ordered the local men discharged to make room for men hired in St. Louis.

The representative of this department then took the matter up with the general manager of the railroad company. He thanked the department for calling his attention to the matter. He said that they preferred to employ local labor when it was available and that no fees were charged the men with the knowledge of the company. He requested information on specific cases, which was given him. He stated that if fees were charged local men it was done by foremen or local men without the consent of the company. He said they had every possible means in handling their foreign labor to stop the grafting which is done by their fellow-countrymen. But every now and then, just when they think they have everything in good shape, it crops out again. He referred the matter to the secret service department to investigate.

At the end of three weeks the general manager wrote the department saying that their special agent department "had covered the matter thoroughly, but were unable to establish any foundation for the complaints made to the department by the Greek laborers." He said "that while it is possible that some of the foreign section men have attempted to collect money from the laborers, the special agents have been unable to get any evidence that it is being done, and we placed quite a few men in the different gangs to test out the foremen."

With reference to the Riley complaint he said, "five men were discharged for loafing, and the others in the gang then quit." "The laborers at Nashwauk were furnished with accommodations in the section house. They were informed by the foreman that they would be put to work as soon as

the season opened up, and they understood thoroughly that they were not to go to work until weather conditions would permit."

"We have not experienced any trouble with foreign laborers this season other than the Greeks. They are a class that are continually grafting from each other, and any statements that they make cannot be depended upon. At least, that has been our experience with them."

No. 2.—A woman was shipped by a Minneapolis agency to Dickinson, N. D., as a cook. She paid the agency a \$2 fee. Her railroad fare was advanced. When she arrived at Dickinson she was put to work washing dishes. On account of the character of the place she quit at the end of seventeen days. She was to receive \$40 a month. The employer deducted \$3 employment bureau fee, \$14.35 railroad fare and the expense for telegrams sent in placing the order.

A representative of this department sent to investigate found that the agency kept no record of the orders received, and issued no memorandum of employment. The agent was required to make a settlement with the complainant, and paid her \$10 for a release from all claims. He was also ordered to comply with the law and keep the proper records.

No. 3.—Three young men complained they were shipped by a Minneapolis agency to do railroad work at Bradley, S. D. They did not secure work. Investigation revealed that the order was for foreigners who would do their own cooking and board themselves. These young men were Americans, and the railroad refused to employ them under the circumstances. The agent settled with them by paying each of them ten dollars.

No. 4.—Six Italian laborers were shipped by a Chicago agency to work on a railroad at Bismarck, N. D. The men claim that the foreman demanded money of them each day to buy whiskey. They gave him money as long as they had any, but when they were broke he discharged them and put others to work in their place. They were given transportation to Minneapolis with an order for further transportation to Chicago.

When they arrived at Minneapolis and called on the railroad officials for transportation to Chicago the order was taken up and the transportation refused. They called on this department for assistance.

An official of the railroad company stated that the men were discharged because they were no good, but offered to secure them positions with the road in Wisconsin. He said the transportation order was taken up, as the superintendent who issued it had no authority to do so. He then offered the men work in a gravel pit in North Dakota but they refused all offers. As transactions were all carried on outside of this state, it was impossible for this department to assist them further, and they were advised to take up the matter with Illinois officials.

No. 5.—Three laborers were referred to this department by a Minneapolis employer who stated that the men were sent to him by a Chicago agency, but that he had placed no order with the agency and had no work. The story of the men was to the effect that they were met on the streets of Chicago by a man who represented himself to be acting for the agency. He told them he was getting up a crew to ship to Montana. Wages were to be \$45 to \$50 a month. He would ship them to the employer in Minneapolis whence they would be re-shipped to Montana. They paid the agent \$10 for

the job and were given a card of the supposed agency with the employer's name and address on the back of the card.

The matter was referred to the Illinois inspector of licensed employment bureaus who reported that the agency in question had no knowledge of the transaction. A description of the man who collected the money was sent to the inspector. Several months later one of the complaining workmen was in Chicago and identified the agent. He was a former employment agent. He was prosecuted by the Illinois authorities and fined \$50 and costs.

Abuses by Employment Agencies.

No. 6.—A workman complained that he was hired, with a number of others, by a Minneapolis agency to work in a logging camp near Little Forks. His wages to be \$35 a month and if he did not remain all season railroad fare would be deducted. He worked 29 days and was paid at the rate of \$1 a day. The company deducted railroad fare, \$9.50; hospital fee, \$1.35, and commissary, \$2.15. The man claimed wages due him for \$8.77.

Investigation revealed that the railroad fare to Little Forks is \$8.13. The men are charged an additional \$1.37 to ride two and one-half miles to camp on the logging road of the lumber company. The company charges \$1 hospital fee for any part of one month that a man works, and if he works one day in the next month the least he is charged is 35 cents. This man was given no employment ticket by the employment agent.

The investigation was made both in Minneapolis and at the camp at Little Forks. The employment agent was prosecuted for failure to furnish memorandum of employment to workmen. The case was tried and dismissed on motion of the defendant. The day following the trial the agent paid the workman \$8.75 in settlement of his claim.

No. 7.—On June 1, 1913, a workman complained he was shipped in December, 1912, by a Minneapolis agency to a logging camp near International Falls. The agency took his baggage as an evidence of good faith, agreeing to send it to the camp. Investigation revealed the agency had never shipped the baggage. The railroad company had \$19 storage charges against the baggage. The employment agency was compelled to pay the charges and release the baggage.

No. 8.—A Duluth agency advertised for men for a certain lumber company. Three men applied for positions with this company. When they looked at their employment tickets they found the name of another lumber company was given. They refused to go to this company and demanded a return of their \$1 fee. It was refused by the agency. On demand of this department the fees were returned.

No. 9.—A Greek complained to the department that he was introduced, in the office of a Minneapolis firm of attorneys, to a man who was represented to be an employment agent for a railroad company. This supposed agent stated that he wanted 8,000 men during the season of 1914, and asked the Greek if he could get him some Greek laborers. He said he could, and then the agent suggested that he was in need of a little money, but the Greek refused to give him any until he could produce a contract for laborers.

On March 25 the agent met the men at a Greek restaurant, and in the presence of three witnesses showed him contracts which purported to

be signed by the general manager of the railroad company. The contracts called for 80 men to work near Superior, Wis., for seven months at \$1.60 a day for the first month and \$1.85 a day for six months, Sunday work to be paid at the rate of \$2.85 a day. A friend of the Greek was to act as foreman and receive \$60 a month.

The contracts were signed, and again the agent asked for money. He was told that the men were all in Milwaukee and the Greek agreed to go there, collect the fees amounting to \$200, and send it to the agent. The friend who was to act as foreman went to Milwaukee. He collected the fees from the men and forwarded the amount to the Greek at Minneapolis. The Greek and the agent went to the office of an express company. There the agent shipped an envelope which he stated contained the contracts to the friend at Milwaukee. The Greek then handed him the \$200. Together they went to a telegraph office and sent a telegram to the Milwaukee man saying that the money was paid and the contracts forwarded. That was the last seen of the agent. When the envelope was opened at Milwaukee, it contained a letter stating that if he could get work for the men he would do so. A warrant for the supposed agent is still pending, as he has not been apprehended.

No. 10.—Complaint was made that an Italian saloonkeeper in St. Paul was hiring men for railroad work and charging each of them a fee of one dollar. Investigation revealed that he had collected this amount from twenty-four Italian laborers. He was prosecuted and fined \$25 for operating an agency without a license.

No. 11.—A woman complained to the department that a St. Paul agency had beaten her out of a position at Black Duck and had overcharged her for telephoning. Investigation revealed that the woman had read of the position in the daily papers and called at the agency and asked the woman proprietor to help her secure the situation. The agent telephoned to the advertiser at a cost of \$2.05 and got the position for the woman. The employer agreed to send transportation and forwarded a check to the employment agent for the railroad fare. The employment agent refused to endorse the check, as she did not know the party. She returned the check to the sender and suggested to the woman to wire herself for transportation. The woman declined to do anything in the matter. When the facts were learned, the department dropped the case.

Some time later, a complaint was made to the department by a St. Paul firm that girls were sent to them by this same agency, though they had not placed any order at any time with the agency. An inspector called at the agency and applied for a position, paying a 50-cent fee. She was given a list of three places to call on. She visited the addresses and found one to be a saloon, into which she did not go, and the other two were restaurants. Both proprietors of the restaurants stated they had never placed an order with this agency.

The municipal authorities were requested to assist in gathering additional evidence and detectives were detailed to apply for positions. This they did and were sent to employers who had not placed any orders for help. The agent was prosecuted in March, 1913, for running an agency without a license and given a suspended sentence of thirty days until January 1, 1914. She was again prosecuted in November for the com-

plaints stated in this case (obtaining fees without having positions for applicants) and fined \$100. As a result of this investigation, the agency was, after two hearings by the city council, refused a renewal of its license.

No. 12.—In assisting several workmen in settling their claims under the workmen's compensation law the department received complaints against a firm in Minneapolis that was doing an accident insurance business. It appeared from their certificates that the holder was entitled to the services of the company in securing employment. The commissioner of insurance and the Minneapolis license inspector were requested to join in an investigation. The firm was advertising positions in the daily papers with a statement of "free service to members."

The firm issued two forms of certificates, termed "regular" and "associate" memberships. The "regular" membership entitled the holder to insurance and all privileges. The "associate" membership entitled the holder to the benefits of the employment agency and to free legal advice. No information of receiving fees from workmen was found. The firm were notified that the acceptance of a fee for an "associate" membership would be regarded as a violation of the law regulating private employment agencies and were advised to take out a license. They made application for the license.

No. 13.—Two workmen who were sent to the northern woods by a Minneapolis agency on a promise of steady work were discharged at the end of eight days. They demanded a return of their fee and railroad fare from the agency, as the employer had signed the employment slip saying there was no work. In this case the employment agent was the victim of the employer. The order for men was first placed by the employer with an agency in Superior, Wis., in September. This agency in turn placed the order with the Minneapolis agency in November. In December the employers wrote the Minneapolis agency the following letter:

"The order for piece-makers was given in September by Mr. H.— Do you think that a man wants to wait for about three months before an order is filled? Have signed the tickets and sent the men back to you. You are in luck that you are not doing business in Duluth or you would pay the time, fare and expenses and lose your license beside."

The Minneapolis agent showed his order to an inspector of the department dated November 17. The order was not cancelled until three days after the letter quoted above was written.

No. 14.—A man and wife were hired by a Minneapolis agency for farm work at Courtland, Minn. On the train they met another couple who said they were hired for the same employer, but did not show an employment slip. On their arrival at Courtland the other couple was given employment. The complainants returned to Minneapolis and demanded a return of their fee and railroad fare amounting to \$13. The agent disclaimed any knowledge of the second couple, but finally agreed to refund \$10 which was accepted. A letter to the employer from the department remained unanswered.

No. 15.—A St. Paul employment agency sent two laborers to the department for assistance in securing the return of railroad fare and hotel expense while going to Northfield to secure a situation to which he had sent them.

The agent stated in a letter that he had received an order from a stock farm at Northfield for two men at wages of \$15 a month until spring, and then \$30 a month. The agent called up the farm and informed the owners that as it was late in the winter, it was impossible to get men to go out for \$15 a month, and that the prevailing wage was \$30. The farmer thought this was a little high and told the agent to try and get men cheaper, but if he could not, then to send men at \$30 a month. These two men came in during the day and the agent hired them to go to the farm at \$25 a month. When the men arrived they were offered only \$15 a month to begin, which they refused. The farmer, on his part, claimed he had ordered men who could milk; that these men could not milk, and that he did not want them.

The agent claimed that in this case the breach of contract was on the part of the employer. Realizing that the workmen were not in a position to commence suit for damages, since they could not afford to lie around waiting for the courts to act, he referred them to the labor department for assistance. The agent emphasized the fact that when the law is so strict in regulating the agent, something should be done to protect him from the unscrupulous or irresponsible employer who engages him to hire men and then violates the agreement that he makes with the agent.

The agent agreed to secure other positions for these men, and one of them accepted his offer. The other man did not return to the office.

No. 16.—Complaint was made by a man that he had paid his last \$3 as a fee to a Minneapolis agency for a position as floorman in a restaurant; that he had hired out as a man with no experience, and within an hour after he was employed his employer began to find fault with his work. He informed the employer that if the employer would sign his employment slip he would quit. The employer refused to do this. He worked three hours longer and was then discharged and paid 50 cents. He returned to the agency, and after considerable wrangling the agent returned \$2 of the fee. The man stated that he was informed this agency was continually sending men to this place of employment, and the results were usually the same.

An inspector was sent to the agency to investigate how many men had been sent to this employer recently. The books showed that from October 23 to December 16 there had been seventeen men hired.

The matter was taken up with the agent and it was represented to him that either there was collusion between him and the employer, or that the employer was not treating his help properly. The agent promised to send no more men to this particular employer.

No. 17.—Two workmen wrote from Ferguson, Iowa, complaining that they were shipped to that point by a Minneapolis agency and were refused work. They enclosed their employment slips which were signed with the employer's names and a statement written thereon—"want no more laborers."

The agent questioned the genuineness of the signatures, but they closely resembled that on the order of the employer. He telegraphed the employers and received a reply, saying: "Do not remember these men and do not think they showed up here, as on that day was short of labor and did not sign any tickets." In a letter following the telegram the employer

repeated the statements made in the telegram, adding that by consulting the payroll he found they were short of help on that day. He wrote: "If they had arrived and looked like they wanted to work, they surely would have got work."

The language "and looked like they wanted to work" and the original telegraph order which reads "ship ten teamsters three or four times a week" made the matter look rather suspicious. The agent, on demand of the department, offered to return the fee and pay the expenses of the men. This fact was communicated to the men to two addresses which they sent to the department, but both letters were returned by the postal authorities.

No. 18.—Complaint was made by a man that he paid a Minneapolis agency \$3 for a position as cook in a hotel at Anoka. He was told to report at the office of the agency at 8:00 o'clock the next morning. He did so, and was told to return at 9:30 o'clock. When he called at that time he was told that the hotel keeper had sent word for him to report for work at Anoka the next day. He went to Anoka and did not secure employment.

When he called at the office of this department his employment ticket was signed by the employer and he also had a ticket made out to another man on the same day. His ticket was numbered 9125, and the ticket of the other man was 9128, only three apart.

A representative of the office called on the agent and verified the man's claims by the records. He compelled the agent to admit that he was playing one man against the other in the hope that one of them would not return. The agent then agreed to settle. The workman figured his loss in wages and expenses at \$31.10, but arranged to settle for \$25. The agent agreed to pay this the same afternoon, but evaded payment for several hours by a number of excuses. He attempted to have the man agree to a smaller settlement, and only paid him the \$25 after the man threatened to place his case in the hands of an attorney.

No. 19.—A workman paid a Minneapolis agency a fee of \$2 for a position with a construction company at Augusta, Minn. When he arrived there the foreman refused to give him work in accordance with the terms of his employment ticket, and directed him to return to the agency at Minneapolis and demand a refund of his fee. The agent refused to return the fee on demand of the city license inspector and later refused a similar demand from this department. As this same agent was involved in four questionable cases preceding this, it was decided to prosecute him.

No. 20.—Two workmen complained that they paid a Minneapolis agency \$1 each and were shipped as teamsters to Marvin, S. D. When they arrived at Marvin they found the camp had been closed for a week. Their employment slips were endorsed by the camp watcher and they beat their way back to Minneapolis. They left their baggage at Milbank, S. D.

The man in charge of the agency agreed to take the matter up with the main office at St. Paul and promised to meet the men at the office at 1:00 o'clock. They called at the office at the time agreed on and waited until nearly 2:00 o'clock, during all of which time the office was closed. They then reported to this department.

A representative of the department got into communication with the main office by telephone and the proprietor stated that he could not understand why the office was closed. He then arranged through another agency to settle with the men. The men demanded \$8 dollars each in settlement, which was paid to them, and the agency arranged to pay the expense of having their baggage shipped from Milbank.

No. 21.—A workman complained that he, with 69 others, was shipped by a Minneapolis agency to Grand Forks, N. D. When they arrived there, only a few of the men were given employment. The man, with several others, was shipped to two other places. At neither of the places was employment furnished. At the end of three days he returned to Minneapolis. He was given an identification slip for three days' wages, but board and one dollar employment fee was deducted. A representative of the department demanded that the fee be refunded to the man, which was done.

No. 22.—A Minneapolis agency shipped a man to Akeley, Minn., to work as a saw filer for a lumber company. He reported at the office of the company and was shipped to a camp about forty miles away. Arriving at the camp, he was told they had not ordered a filer and was directed to another camp, with the same result. He returned to Akeley completely exhausted and was cared for at a hotel for two days. He called at the office of the lumber company and was told there was work for him at a camp eight miles out. He refused to go to the camp and returned to Minneapolis.

The agent refused (as work was offered the man) to return the fee. The workman attempted to secure a settlement from the local representative of the lumber company, and upon his refusal to deal with him the man placed his case in the hands of an attorney.

No. 23.—An Italian laborer demanded the return of a fee paid to a St. Paul agency, as he claimed he was sent to the job too late to get employment. In an investigation it was learned that the man was notified on a Monday morning to report at the place of employment at noon. At about 2 o'clock that afternoon a bartender called up the employment agent and told him the man was too drunk to go to work. The man reported for work on Wednesday and was refused work. The fee was not returned.

No. 24.—A married couple was sent by a St. Paul agency to work on a farm at Rosemount. The wages were to be \$220 for six months' work, or about \$36.66 a month. The farmer was to meet them with a team, as it was six miles out of town. They claimed that when they arrived they found no team waiting. They hired a livery rig and drove to the farm. The farmer offered to pay them at the rate of \$25 a month for the first two months, and they refused to go to work for this.

The farmer was communicated with and he stated that he was willing to pay the wages agreed upon as shown in his order, but that he had told the couple he would only pay them \$25 a month on account for the first two months, holding the balance for their good faith in remaining the full season. He claimed they demanded \$250 for the season, which he refused to pay.

The couple demanded a return of the fee, which was \$2, and also railroad fare of \$2.24, car fare 20 cents and livery \$2, a total of \$6.44. The agent claimed he was not responsible for the expenses and had offered them

another position which they refused. He refused to return the fee or pay the expenses. The couple could not speak much English, which probably caused much of the misunderstanding.

CHAPTER II.

PUBLIC EMPLOYMENT OFFICES.

The report of the state free employment offices is herewith presented in a series of three tables. The first shows the number of positions filled during each month of the last two years, and the expense of running the offices. It shows that the cost for each position filled was approximately 16 cents in 1913 and 18 cents in 1914. During the two years 114,296 positions were filled, but a reference to table 3 shows that a considerable percentage of these were jobs lasting only a day or two. The offices need a superintendent in order to do their work properly. The second table shows the number of positions by months and by the sex of the employes sent to them, and the third table shows the nature of the occupations to which the employes were sent.

TABLE No. 1—POSITIONS FILLED—MONTHLY EXPENSE—COST PER POSITION FILLED

	Number of Positions Filled				Monthly Expenses				Cost per Position Filled			
	St. Paul	Minneapolis	Duluth	The State	St. Paul	Minneapolis	Duluth	The State	St. Paul	Minneapolis	Duluth	The State
1912-13												
July.....	1,528	3,098	1,482	6,108	\$245.16	\$400.01	\$312.31	\$957.45	\$1604	\$1291	\$2107	\$1507
August.....	1,381	2,845	1,422	5,848	216.79	336.35	271.74	824.58	1569	1104	1910	1410
September.....	1,320	2,834	1,179	5,333	248.89	321.75	277.44	848.06	1885	1135	2353	1590
October.....	1,379	3,406	1,293	6,278	232.69	283.45	310.39	826.53	1473	0832	2400	1316
November.....	1,280	2,440	1,010	4,730	210.99	262.35	330.79	824.13	1648	1157	3275	1742
December.....	892	1,443	824	3,159	211.06	307.55	275.89	794.53	2366	2131	3348	2515
January.....	942	1,651	708	3,301	217.89	278.70	253.49	780.08	2313	1688	4004	2363
February.....	784	1,466	554	2,804	210.09	279.60	270.54	760.23	2679	1907	4853	2711
March.....	964	1,785	764	3,463	212.08	276.50	278.49	766.83	2200	1893	3641	2214
April.....	1,655	3,107	1,203	5,965	215.59	281.80	279.49	776.88	1302	0806	2323	1302
May.....	1,905	3,410	1,412	6,727	221.49	288.94	270.24	780.67	1162	0847	1913	1160
June.....	1,513	2,730	1,202	5,445	212.09	284.11	272.14	768.34	1401	1040	2264	1411
Totals...	15,743	30,305	13,053	59,161	\$2,654.85	\$3,621.11	\$3,432.70	\$9,708.66	\$1686	\$1193	\$2630	\$1641
1913-14												
July.....	1,476	2,973	1,112	5,561	\$346.49	\$666.90	\$305.19	\$1,318.58	\$2347	\$2243	\$2744	\$2371
August.....	1,420	3,089	1,164	5,673	166.66	326.66	234.50	727.52	1173	1057	2014	1415
September.....	1,354	2,919	1,463	5,736	233.01	371.96	270.00	874.87	1493	1274	1845	1474
October.....	1,331	3,398	1,845	7,574	176.86	417.31	279.21	873.36	0829	1157	1513	1167
November.....	1,347	2,457	1,110	4,815	214.16	341.66	236.29	794.11	1449	1586	2147	1725
December.....	902	1,497	610	3,009	161.66	329.01	264.40	770.07	1958	2186	4354	2830
January.....	652	1,310	640	2,602	183.36	286.26	243.08	712.70	2812	2185	3798	3235
February.....	794	1,037	591	2,422	176.76	283.01	238.26	693.06	3578	2729	4751	3266
March.....	751	1,408	585	2,737	181.70	293.41	253.32	728.49	3420	2084	4908	2652
April.....	1,590	2,435	1,075	4,700	185.91	360.16	256.73	782.89	1169	1479	3507	1665
May.....	1,708	2,866	1,324	5,893	179.66	332.06	234.27	745.99	1055	1158	1769	1266
June.....	1,415	2,121	967	4,503	176.26	362.41	238.94	777.61	1245	1707	2471	1727
Totals...	15,435	27,611	12,089	55,135	\$2,397.55	\$4,370.81	\$3,031.22	\$9,799.58	\$1553	\$1583	\$2507	\$1777

Total number of positions filled from July 1, 1912, to June 30, 1914..... 114,296

Total expense of three offices from July 1, 1912, to June 30, 1914..... \$19,508.24

Average cost per position filled..... \$1707

TABLE No. 2—POSITIONS SECURED

Month	Positions Secured—Male				Positions Secured—Female				Grand Total
	St. Paul Office	Minneapolis Office	Duluth Office	The State	St. Paul Office	Minneapolis Office	Duluth Office	The State	
1912-13									
July	1,008	1,908	998	3,914	520	1,190	484	2,194	6,108
August	840	1,858	969	3,667	541	1,187	453	2,181	5,848
September	728	1,560	676	2,964	592	1,274	503	2,369	5,333
October	838	1,956	780	3,574	741	1,450	513	2,704	6,278
November	720	1,340	622	2,682	560	1,100	388	2,048	4,730
December	460	610	435	1,505	432	833	389	1,654	3,159
January	501	736	337	1,574	441	915	371	1,727	3,301
February	421	602	278	1,301	363	864	276	1,503	2,804
March	521	732	420	1,673	443	1,003	344	1,790	3,463
April	1,058	1,762	690	3,510	597	1,345	513	2,455	5,965
May	1,111	1,888	931	3,930	794	1,522	481	2,797	6,727
June	892	1,294	736	2,922	621	1,436	466	2,523	5,445
Totals.....	9,098	16,246	7,872	33,216	6,645	14,119	5,181	25,945	59,161
1913-14									
July	840	1,539	576	2,955	636	1,434	536	2,606	5,561
August	831	1,712	788	3,331	589	1,377	376	2,342	5,673
September	906	1,741	875	3,522	648	1,178	588	2,414	5,936
October	1,342	2,181	1,232	4,755	789	1,417	613	2,819	7,574
November	778	1,268	672	2,718	569	1,090	438	2,097	4,815
December	408	395	215	1,018	494	1,102	395	1,991	3,009
January	239	317	179	735	413	993	461	1,867	2,602
February	257	319	193	769	337	718	298	1,353	2,122
March	304	396	194	894	447	1,012	394	1,853	2,747
April	849	1,004	255	2,108	741	1,431	420	2,592	4,700
May	849	1,319	670	2,838	854	1,547	654	3,055	5,893
June	758	850	456	2,064	657	1,271	511	2,439	4,503
Totals.....	8,361	13,041	6,305	27,707	7,174	14,570	5,684	27,428	55,135

TABLE No. 3

Males	St. Paul Office		Minneapolis Office		Duluth Office		The State Office	
	1912-1913	1913-1914	1912-1913	1913-1914	1912-1913	1913-1914	1912-1913	1913-1914
Apprentice					1		1	
Ashman						2		2
Attendant	8	2					8	2
Auto washer			7				7	
Baker					1	1	1	1
Barnman	36	24	40	11	3	59	79	94
Bartender					1	1	1	1
Baggage man					1	1	1	1
Bellboy	2					3	2	3
Berry pickers				4	10		10	4
Brakeman					6		6	
Bookkeeper						1		1
Bricklayer					1		1	
Busboy					3	1	3	1
Butcher					6	9	6	9
Blacksmith					2	2	2	2
Buttermaker					2		2	
Cabinet maker					3		3	
Canvasser					3	2	3	2
Car cleaner						5		5
Carpenter	10	8	21	8	25	43	56	59
Carriage rider					1	1	1	1
Car repairer					21	1	21	1
Casual laborers	3,914	3,499	4,111	3,476	3	366	8,028	7,341
Chimney sweep					3	2	3	2
Checkmen & clerks	2	2	1	1	8	3	11	6
Cooks	12	8	3		56	64	71	72
Cooke					8	7	8	7
Cement workers	16				29	76	45	76
Choreman					11	10	11	10
Cranemen					1		1	
Can washers						8		8
Deckhand					89	39	89	39
Dishwasher	96	93	144	60	24	33	264	186
Dock hand					24		24	
Driver	80	79			4	10	84	89
Driller					4	6	4	6
Delivery boys		42						42
Electrician			2		1		3	
Elevator hand	16	8	2			2	18	10
Engineer	4	1	4		6	1	14	2
Edgerman					2	2	2	2
Farm laborers	163	236	382	370	213	153	758	759
Corn huskers		5	79	4			79	9
Dairyhand	37	35		6	60	29	97	70
Harvester	326	86	3	45	3	4	332	135
Haymaker		52						52
Factory hand		1			45		45	1
Fireman	16	11	26	6	46	5	88	22
Freight handler	8		2		1		11	
Gardener	49	68	219	194	24	78	292	340
Garbage man					1		1	
Houseman	20	19	7		12	18	39	37
Harnessmaker					1		1	
Helper			4		59	9	59	13
Hotel work			1				1	
Ice man			1			1	1	1
Janitor	38	47	47	20	3	2	88	69
Kitchenman	36	25	33	8			69	33
Laborers	3,013	3,253	10,425	8,542	6,589	4,816	20,027	16,611
Laundrymen		7	1		4		1	11
Line spicers						1		1
Liveryman					10		10	
Loaders						2		2
Lathers				2				2
Lumber piers					30		30	
Mason tender	84	72	73		1	1	158	73
Mortar mixer			10				10	1
Moulder							1	1
Office boy	5	4			2	5	7	9
Oiler				1	1		1	
Orderly	3	1	2				5	2
Painter	15	7	17	12	8	6	40	25

TABLE No. 3—Continued

Males	St. Paul Office		Minneapolis Office		Duluth Office		The State	
	1912- 1913	1913- 1914	1912- 1913	1913- 1914	1912- 1913	1913- 1914	1912- 1913	1913- 1914
Nature of Position								
Panwasher.....	25	13	15	4	23	25	63	42
Paper hanger.....			1	1	1		2	1
Plasterer.....				1	1		1	1
Plasterer tender.....	37	38	31	2			68	30
Packer.....		1						1
Popmaker.....						1		1
Porter.....	78	31	64	42	110	79	252	152
Plumber's helper.....			33				33	
Roofer.....					2		2	
Sandwichman.....		1						1
Seaman.....					2	1	2	1
Scaler.....					1		1	
Shingler.....		1						1
Setter.....					3		3	
Sawmill laborer.....						32		32
Sawyers.....						5		5
Second cook.....						4		4
Silver wiper.....	4	1					4	1
Spieler.....	6	1					6	1
Steam fitter.....		1	3		1	16	4	17
Stockman.....	4	2			11	5	15	7
Stonemason.....		1			9		9	1
Teamster.....	75	75	270	176	78	43	423	294
Tiemaker.....					19	46	19	46
Tinner.....					2	2	2	2
Timekeeper.....	6						6	
Trucker.....	34	35	3		13	7	50	42
Trimmer.....					2		2	
Waiter.....	20	1	7	1	11	9	38	11
Watchman.....	1	6	2	1	2	2	5	9
Warehouseman.....	653	463					653	463
Wheelman.....						4		4
Window cleaner.....			10	4	3		13	4
Wiper.....					46	21	46	21
Wood cutter.....			126	22			126	22
Woodsmen.....	126				15	62	141	62
Yardman.....	20	5	18	9	45	48	83	62
Totals.....	9,098	8,361	16,246	13,041	7,872	6,305	33,216	27,707

TABLE No. 3—Continued

Females	St. Paul Office		Minneapolis Office		Duluth Office		The State	
	1912-1913	1913-1914	1912-1913	1913-1914	1912-1913	1913-1914	1912-1913	1913-1914
Agent.....					1		1	
Attendant.....			3				3	
Baker.....				1				4
Bath room girl.....						3		4
Berry pickers.....	3	18			16		19	18
Book binder.....		2						2
Canvasser.....	1				1	3	2	3
Cash girl.....						2		2
Chambermaid.....	64	75	40	40	106	131	210	246
Chicken picker.....						4		4
Companion.....	2	1	1				3	1
Combination girl.....		4	4	3			4	7
Cook.....	46	34	41	20	102	86	189	140
Clerk.....	2			2	3	9	5	11
Confectionery.....				1				1
Counter girl.....					6	6	6	6
Domestics.....	368	249	297	219	347	338	1,012	806
Day workers.....	5,845	6,595	13,521	14,153	4,167	4,517	23,533	25,265
Dishwasher.....	1	16	47	20	132	121	180	157
Demonstrator.....					2		2	
Dusters.....			2				2	
Egg candler.....					14	5	14	5
Factory girl.....	7	3	4		8	9	19	12
Floor girl.....		3	3				3	3
Housekeeper.....	62	34	42	24	28	37	132	95
Helper.....	5	1					5	1
Janitress.....			19	9	7	2	26	11
Kitchen work.....	152	59	40	37	75	101	267	197
Labeler.....	1						1	
Laundry work.....	7	4	5	4	3	17	15	25
Matron.....		1						1
Maids.....	2	3					2	3
Milliner.....				1				1
Nurse.....	16	3	6		9	17	31	20
Nurse.....	9	22	8	5	23	26	40	53
Office girl.....	1	1				1	1	2
Paint girl.....					2	15	2	15
Pan washer.....			1				1	
Pantry girl.....	5	4	2	3	4	9	11	16
Pastry cook.....						2		2
Piano player.....						1		1
Second maid.....	17	12	8	15	4	12	29	39
Seamstress.....	2	2		1	9	13	11	16
Stenographer.....	1						1	
Second cook.....			3	1	2	28	5	29
Silver girl.....			6		3	3	9	3
Solicitor.....						1		1
Toast girl.....					3		3	
Vegetable girl.....					1	5	1	5
Waitress.....	26	28	16	11	103	156	145	195
Totals.....	6,645	7,174	14,119	14,570	5,181	5,684	25,945	27,428

PART VIII.

SPECIAL INVESTIGATIONS.

LABORERS' BOARDING CAMPS.

There are employers in Minnesota who house their workmen in boarding camps who seem to have no regard whatever for the health of their employes. Their workmen are herded together in dirty bunk houses, where they contract various diseases, and are then returned to the cities to associate with their fellowmen and to spread the diseases they have contracted. No laws regulate these camps and no department of the state has any authority over them. The owners of the camps have continued their practices for years without let or hindrance and often use up the vitality of strong, healthy men in one season and send them back to their homes a menace to the communities.

Minnesota has a law to regulate lodging houses in cities. It requires at least 60 square feet of floor surface per bed and at least 400 cubic feet of air per bed. An investigation of outlying camps revealed that the average number of cubic feet per individual ranged from 466 cubic feet per bed in the roomiest bunk houses to as low as 102 cubic feet in the worst, not subtracting for the bunks and other furniture in the room. The rooms having the least air space were also the filthiest and most unsanitary.

A number of complaints were made by private citizens to the board of health and to the department of labor relative to the conditions in these camps. The board of health having no jurisdiction and no means of making an investigation referred all complaints to this department. This department had no means of remedying conditions, but did have power to investigate and the results of its investigations are herewith presented. The complaints did not come in until late in the lumbering season and many of the camps were closing, but, including railroad camps, a total of twenty were visited.

The reports of the department's investigations showed that in many camps the conditions were as abominable as they were unnecessary. Some of the camps were models of neatness and cleanliness. The owners of these model camps were pleased with their men and their men were pleased with them. Everybody was contented, the men were growing more instead of less efficient each year, and the employers were able to get the same men to return to work for them year after year and to remain the entire season.

One of the department's deputies engaged in the investigation decided to learn what regulations were enforced for sanitation and hygiene in the United States army's camps before making any recommendations relative to the industrial camps. The engineering corps at Fort Snelling willingly gave him many valuable suggestions, which he embodied in his recommendations, among them the one for a rock pit incinerator and the one for a portable privy. The rock pit incinerator for burning garbage and waste matter is constructed as follows: Construct a pit five feet long, four feet wide and three feet deep. Fill the bottom with gravel and the balance of the pit up to six inches above the level of the ground with rock about four inches in diameter. Bank the sides with dirt and sod to a level with the

rock. One end of the pit should be six inches lower than the other and the pit should be concave in the center. Build the fire on top of the bed of rock. Use old ties or other wood and keep burning all the time. All waste water evaporates as it is poured into the pit. In opening cans put a hole in the bottom in order that all matter remaining in the can will run out.

The burning process burns off the paper and leaves nothing for flies. Cast-off clothing and other material can be burned, leaving the vicinity of the camp in a clean, sanitary condition.

The portable privy is made as follows: For fifty men dig a pit eight feet long, twenty inches wide and six feet deep. Construct one box of one-inch lumber, tennoned and grooved, the following dimensions: Eight feet long, eighteen inches wide at top and twenty-four inches at bottom with the slope in the back, and eighteen inches high. Close at the ends and sides and make flyproof. Cut four seats in the top twenty-four inches apart and cover with a lid, this lid to be hinged. Place a wood rail above the seat so as to keep them foolproof, or so that they cannot be left open. Place a piece of tin inside in front of each seat. The pit should be made flyproof. Each week the pit should be filled with straw to a depth of four inches, saturated with crude oil and burned out. The seats can be scrubbed each week and everything kept in a sanitary condition. These privies can be moved from place to place.

The subject of camp sanitation has received the attention of the engineers connected with railroad and engineering work in the northwest. This is demonstrated by the regulations recommended by the Northwestern Sanitation Association at a convention held in St. Paul on December 5, 1912. The recommendations were adopted after thorough consideration and can be used as a basis for legal regulations. We therefore present them here:

Hereafter contractors and all other persons who may establish an industrial camp or camps for the purpose of logging or any like industry, or for the purpose of construction of any road, railroad or irrigation canal, or other work requiring the maintenance of camps for men engaged in such work, or any other temporary or permanent industrial camp of whatsoever nature, shall report to the state health official concerning the location of such camp or camps, and shall arrange such camp or camps in a manner approved by the state health official, so as to maintain good sanitary conditions, and shall at all times keep such camp or camps in a sanitary condition satisfactory to the state health official. All camps should be established upon dry, well-drained ground, and any natural sink holes or collections or pools of water should be artificially drained and filled when the camp is first established.

The general scheme of the relation of the structure of the camps should be as follows: Stable and kitchen should be at the opposite ends of the camp and separated by a distance as great as consistent with the natural topography of the land and with the necessity for convenient access to the stables. Eating houses should be next to the kitchen and beyond the eating houses should come the bunk houses, and between the bunk houses and the stables the toilets for the men in the camp. The kitchen, food supplies, and eating house in particular should be effectively screened. It is also desirable to have this done for the bunk houses.

The use of the toilets provided for the men should be made obligatory and instant discharge of any employees polluting the soil must be rigidly enforced to make such rules effective. A small temporary incinerator should be constructed near the stables. Incinerators capable of doing effective work can be constructed for not over \$25, sufficient to care for all

the refuse of a camp of one hundred and fifty men and stables of ten to twelve horses. There must be in camps of one hundred men or over one employe whose particular duty should be acting as scavenger and garbage collector. All manure should be gathered and burned each day, and for the convenience of the collector should be thrown into a tightly covered box. The same is true of all garbage, which should be collected in tight cans. All fecal matter should be treated in the same way or else treated in some other approved manner. Collection and incineration is the safest in the long run and the easiest method by making use of the removable pan, which can be freshly limed.

Noninflammable refuse, such as tin cans, should be collected daily and placed in a deep earth pit and covered with a light covering of earth each day or covered with oil and burned over. All urinals should consist of open trenches lined with quick lime, and fresh quick lime should be added in the proportion of one-half barrel per day per one hundred men.

Thorough and systematic scrubbing of kitchens, eating houses, and bunk houses should be regularly insisted upon.

The supply of water for the camp should be carefully decided upon, and wherever possible, if the camp is to remain several weeks, it is well to run it in pipes from an absolutely uncontaminated source.

All sick from whatever cause should be isolated from the remainder of the crew immediately. All persons engaged in the care of the premises and handling of the food, particularly cooks and helpers, should be carefully examined and particular attention paid to the point as to whether or not they have suffered from typhoid fever within recent years.

REPORTS OF INVESTIGATORS AND RECOMMENDATIONS.

Railroad Camps.

The investigation of conditions obtaining in railroad boarding camps was due in the first place to complaints lodged with the state board of health in July, 1913, by men who had been living in boarding cars at Hampton. The board of health referred the matter to the labor department and a deputy was detailed to inspect this and several other camps.

These camps are usually conducted by commissary companies under contract with the railroad companies. The railroad company furnishes the cars, bunks, ice, water and fuel. The commissary company furnishes the kitchen and dining car equipment, bedding, stoves, food and commissary supplies. A commissary man has general supervision of each camp, ordering or purchasing the necessary food supplies and selling tobacco, soap, underwear, shoes, matches, socks and other articles the men may require. Most of the food is furnished from the Chicago headquarters, but the commissary is allowed, if reduced prices can be obtained, to purchase in the local market. An allowance is made for each article of food. If the commissary man can save on one article he can use the margin saved for an increase on some other article. A daily report is made to headquarters, giving the number of men fed and the cost of feeding them. These reports were inspected and showed an average cost per man ranging from 17.5 to 26 cents a day.

The commissary man makes a requisition for all supplies needed. Meats supplied are beef, mutton, sausage, liver and hearts. Vegetables are usually potatoes, corn, tomatoes, navy beans, rutabagas and beets. When purchasing in the local markets green vegetables are frequently used. Other foods supplied are macaroni, corn, syrup, jelly, coffee, flour, oatmeal, raisins and rice. The jelly used is composed largely of glucose. The coffee is a com-

position of cereals and chicory of a poor quality. When allowed to stand for a day it becomes exceedingly bitter and makes a poor beverage. A variation of menu depends entirely upon the ability of the commissary man to market profitably. The meat is kept in zinc lined boxes built on end of the car. Ice is packed in the bottom and the meat placed on top. Groceries are shipped in crates, cases and bags. When the packages are opened they are continually exposed to flies and roaches. The cleanliness of the commissary car depends altogether upon the man in charge.

The kitchen outfit consists of a large range and tin dishes. The coffee is usually boiled in tin boilers. Bread is baked at the camp and in several of the camps was of good quality. Flour is kept in bins made temporarily for the purpose. Water for the kitchen is kept in barrels. In one instance the cook's bunk was built next to the flour bin.

The dining cars contain a table running the length of the car. These are covered with oil cloth. In some instances long strips of mosquito netting is used to cover the tables between meals. China dishes, steel knives and forks and tin spoons are used. The knives and forks as a rule are given little attention to keep them clean. Some of the men reported that when running a knife over the bread it left black streaks of grease and dirt. The cleanliness of dishes and utensils depends upon the vigilance and character of the commissary man.

The cook has two assistants who assist in the cooking, wait on table and wash dishes. The kitchen is usually placed between two eating cars, made accessible by end doors. Besides the regular sliding doors at the side of the car four windows 16x20 inches are cut in each car for light. The windows are made to slide and can be opened or closed as desired. The cars are reached by short wood ladders at the sides of the car.

The sleeping cars contain fourteen bunks, eight at one end, six at the other, leaving a space for a camp stove and a bench for washing. The bunks are in two tiers, placed one above the other. They are about 30 inches wide and 74 inches long. The mattresses used are of several varieties. Some are filled with excelsior, some a combination of cotton and excelsior, and some are straw ticks. Through long usage these mattresses have been packed down and are very hard. They are filthy at their best and if condemned at all it is only at the end of a season. The straw ticks would be the most sanitary if they were frequently filled with fresh straw. This is seldom done and every one of them brings forth a cloud of dust when struck or handled. They are seldom aired and are a constant menace to the health of the men who use them.

Each man is issued two cotton blankets. In some camps these were clean, but in the majority of the camps they were dirty and in several instances filled with vermin. Tin wash basins are supplied. Each man must furnish his own towel and soap for toilet and clothes washing purposes. As a result of this the men secret the towels in their bunks. They are therefore seldom dry and in most cases none whatever are used. The men are not encouraged to keep clean.

In some camps portable privies were provided. They were open affairs and placed in close proximity to the kitchen and eating cars. In other camps no privies whatever were provided. The men went into the weeds along the right-of-way adjacent to the cars. The grounds surrounding

these camps were in a filthy condition. None of the cars are screened and the flies can carry the filth from the piles of excrement to the kitchen and dining cars. This may account for a number of cases of dysentery that existed among the men. The waste matter from the kitchen is usually dumped into an open pit near the kitchen door. In some cases it was dumped in the weeds near by.

The inspector made the following recommendations. All commissary, kitchen and dining cars should be screened. Screens could be made of a standard size and kept from one season to another. Receptacles with a tight cover should be furnished for all food products. Straw ticks should be used in all bunks and frequently filled with fresh straw. That a rock pit incinerator, such as used in the United States army, may be used for burning all refuse matter. That flyproof pits and privies be constructed for the men. That privies at stations be given frequent treatment of lime or some other disinfectant.

The recommendations were submitted to the general superintendent of the railroad who promised to confer with the officials in charge of this Work. He said he would recommend that the next year they should exact as a part of the contract with these commissary companies that they carry out the recommendations of the inspector. He also stated that the recommendations for rock pit incinerators would be adopted all along their entire railway system. He said that he appreciated the co-operation of the department and was pleased at the inspection.

Hampton Camp.

The camp at Hampton when complained of was operated by the commissary company. When the inspector arrived there he found that their outfit had moved to Randolph. The railroad company had installed a camp of their own at Hampton. It was a new outfit and consisted of one kitchen car, two dining cars, one foreman's car, one tool car and five bunk cars. The cars had just been remodeled and were in good condition. The entire equipment was also new. The food was of a better quality than that used by the commissary company. The crew consisted of eighteen Italians and forty Macedonians. They boarded themselves, having their own cook and flunkie in the kitchen. The privies at the station were cleaned prior to the inspection.

Randolph Camp.

This camp consisted of two commissary cars, one kitchen car, two dining cars and seven bunk cars. It was located on a siding within the city limits. Fresh meat was received twice a week from Chicago. It was kept in the original containers and was of poor quality. The foods were all taken from the original package. At breakfast the potatoes turned black when fried; the sausage was sour and the coffee bitter and unpalatable. The wheat cakes were the only good food served at this meal. The steaks were so tough that remarks of "get me a file" were frequent among the men. The floors of the kitchen and dining cars were dirty.

The bunk cars and blankets were filthy. The excelsior mattresses were dusty and packed hard. The cars were poorly kept. No pillows were furnished. One of the blankets or a coat served as a pillow.

There were no sinks or privies for the men. Among the weeds adjacent to the cars the ground was filthy with excrement and old clothes fairly alive with vermin. One of the men had built a fire over an old serge coat lying in a path and which was gray with lice. A number of the men complained of dysentery as a result of the food and the general insanitary conditions of the camp.

Hayfield Camp.

This camp had six bunk cars, one commissary car, one kitchen car, two dining cars and one foreman's car. The commissary car was in good condition and the food stuffs kept in the best condition possible under the circumstances. The commissary man was responsible for good conditions prevailing at the camp. He was handicapped by having a drunken cook to contend with. The bedding was in fair condition. A man was detailed to care for the cars and the bedding was regularly aired and the cars cleaned. The ice box was scrubbed weekly with salsoda. The waste water was covered each day with chloride of lime. No privies were provided for the men, but the commissary man enforced discipline and compelled the men to go a considerable distance from the cars. The dining cars are scrubbed weekly. No screens are provided and flies are numerous. The men stated that the food furnished was good until the cook went on a drunk. The men were a mixture of hoboes and foreigners.

Nerstrand Camp.

This camp consisted of one commissary car, one foreman's car, one kitchen car, two dining cars and four bunk cars. The commissary car was in good condition. Food stuffs were kept as good as possible. New potatoes and cabbage were furnished here. The mess outfit was clean and no complaint was heard against the food.

The privy was located about 300 feet from the kitchen. The well from which the water was obtained was about 100 feet beyond the closet. After a heavy rain the previous night the water was found unfit to use and thereafter water was taken from the railroad water tank.

The bunk cars were clean. The blankets were in fair condition, and the mattresses the best of any camp visited. The commissary man had only been with the outfit a few days. He promised to get some netting for the windows of the kitchen and dining cars. A fresh supply of meat had just been received and it was in good condition. About 26 men were employed, mostly hoboes with a few foreigners.

Dennison Camp.

The camp consisted of four bunk cars, one commissary car, one kitchen car and two dining cars. The commissary car was in fair condition. The food stuffs remained in the original package. The potatoes served were old, but other vegetables such as cabbage, rutabagas and beets were fresh. A new commissary man had just taken charge of the camp. The food served was good and the men made no complaint.

The bunk cars were in good condition. Some of the mattresses were made of excelsior and some were straw ticks. There were plenty of clean blankets. The kitchen and dining cars had no screens.

An open pit closet was used, situated about 300 feet from the cars. The men also used the depot closets at times. Chloride of lime was used daily around the kitchen and dining cars and some was requested to be used at both closets, which was done. The cars had not been scrubbed for two weeks. The excuse was that the water was too hard and they were waiting for salsoda from Chicago to soften the water. Forty men were employed, one-half of them foreigners and one-half hoboes.

The cases already instanced are typical of the conditions found in other camps visited. Only two more camps, therefore, will be described.

Wayzata Camp.

The department was requested to make an inspection of a construction camp near Wayzata which was reported in an insanitary condition. The camp was operated by a commissary company with headquarters in Minneapolis. This company also operated two camps within the Minneapolis city limits and all three were inspected.

The camp at Wayzata consisted of one kitchen car, one dining car, two bunk cars and three sleeping shacks. There were ninety-seven men employed at the time of inspection. The kitchen car was very dirty. The floor and walls were in poor condition generally. The cooking utensils consisted principally of lard cans which were fairly clean. A slop barrel was placed between the kitchen and dining cars. This barrel was connected to an open pit about forty feet away by a one and one-fourth-inch pipe. Very little of the slops ever reached the pit but fell under and near the cars. One pane of glass besides the two side doors in the kitchen car furnished light and ventilation.

Meats were stored in two metal-lined boxes set on the ground near the cars. No ice was used. The meat scraps from the kitchen and dining room were saved by the cook for a farmer's dog nearby. These scraps were allowed to remain in contact with the fresh meat sometimes for a week. The two box cars used for dining cars were each thirty-three feet long and had each a seating capacity of thirty men. Earthen and tin dishes were used. The dishes and tables were fairly clean. The floors were dirty.

The two bunk cars were each thirty-six feet long and ten feet high. Each car had forty-two single bunks, twenty-one on each side; ten upper and eleven lower bunks. The bedding was in an exceedingly filthy condition. The floors were dirty. The two side doors furnished the only light and ventilation.

The three sleeping shacks were constructed of wood and tar paper. Shack No. 1 was 14x14 feet square and stood on wet, swampy ground. Water and mud oozed through the floor. It had one door and one single sash window. No heat was furnished. There were twenty beds in the shack. The place was very filthy.

Shack No. 2 had twenty-three beds. It was 16x24 feet square. One door and one-half window furnished light and ventilation. A stove furnished heat. The place was dirty.

Shack No. 3 was 12x12x8 feet. Light and ventilation was furnished by a door and one-half window. It contained one single and four double beds. This shack was somewhat cleaner than the others. It was partly used as an office. A privy to accommodate six men was placed about 200 feet from the cars. It was in bad condition.

The conditions in the camp were reported to the commissary company in charge of it. Several weeks later they requested a re-inspection. In company with one of the proprietors, two inspectors went to the place. The improvements were remarkable. The cars were cleaned. Ice was furnished for the meats. A larger drain pipe was placed in the slop barrel which drained the slop into the pit. Receptacles were furnished for sputum. Dishes and bedding were cleaned. Lime was liberally used about the camp. Altogether the place seemed an ideal camp with the exception of the damp condition of the one shack. The proprietor promised to locate this in a dry place at once.

The two other camps inspected were found in good condition. Cars, dishes and bedding were clean. The food was clean and good in quality. The proprietor promised to provide screens for all windows and flyproof receptacles for all food products.

Coon Creek Camp.

While engaged in other duties at Coon Creek an inspector learned that there was a construction camp near there and paid it a visit. He found it a model of its kind. The quarters were clean and well ventilated. Artesian water from a well 220 feet deep was piped into all the buildings. A sewer was laid throughout the camp and connected with each building. A well equipped hospital with a trained nurse in charge was located in the camp. The management had provided everything possible for the health and comfort of the men and a moving picture theater for their amusement.

Lumber Camps.

It is unnecessary to publish in detail the findings of the inspectors in all of the logging camps that they visited. A complete description of one camp will be given, and descriptions of the health conditions in a sufficient number of others to show the best and worst conditions found. The better camps reveal what is practicable in the way of camp construction and sanitation. The worst camps show what results follow unrestrained cupidity and disregard of the rights and welfare of others.

In January, 1914, complaints were made against two employment agencies, alleging that men were sent to lumber camps where there was no work, and that when the men boarded a train to return to Minneapolis the local constable attempted to put them off the train, and failing in this, tried to secure their employment agency memorandum slips and did in some cases tear off part of the slips to make it appear that the slips were taken up in camp and that the men had refused to go to work. During the time the inspector and the license inspector of Minneapolis were investigating the matter a justice of peace who had interested himself in the case called at the labor department and stated that about twenty-five complaints had been made to him by laborers who alleged misrepresentation by employment agencies, that in the lumber camps no bunks or blankets have been furnished; that camps were overcrowded and men had to sleep on the floor; that the bull cook went to bed at the same time as the men and there was no heat furnished at night; and that men complained they were refused work. He said all these complaints were against one firm of loggers. The complaints of the men, of this justice of the peace and of the Minneapolis Associated Charities caused the department to investigate the operations of these loggers. Two deputy commissioners were detailed to make the investigation. They inspected seven camps operated by three different logging companies, four of which were operated by the company principally complained of. All these camps were located near Boy River.

The following summarizes the facts with respect to the firm complained of:

All of their men were hired through two employment agencies in Minneapolis, which charged fees of two dollars per job. The logger advanced the railroad fare and deducted it from the first pay. Pay checks were cashed at the hotel and saloon at Boy River. The men were charged a hospital fee of one dollar a month, and the privileges they purchased by this payment were described in the following notice posted in each camp:

"Employees Notice."

"We have made arrangements with the ——— Hospital Association, conducting the ——— hospital at Bemidji, to protect our employees in sickness or accident. For this protection we pay the above association \$1.00 monthly for each and every employee; that is, each and every employee not protected with a hospital ticket.

"By this small monthly assessment, as stated above, you will in case of sickness or accident receive all care and medical treatment at hospital for which assessment is made. Chronic or contagious sickness, such as scarlet fever, smallpox, measles, venereal diseases and sickness arising from intoxication, or accidents arising from fighting, are excluded from this benefit. The hospital association invites the inspection of employees. For further information apply to superintendent or foreman."

In none of these camps were there any facilities for giving first aid to the injured, notwithstanding the fact that many accidents occur. The only facilities they have is some liniment sold in the commissaries. None of the camps had bandages, tourniquets or splints and none had stretchers. When one was needed it was improvised out of poles and a blanket. Trainmen along the line report that men suffering from accidents in various forms are brought to the platforms where they are left for the trainmen to take care of and no provision is made to receive them at their destination. In one instance an employe of ——— Bros. suffered a fracture of a leg, broken in two places. He was brought in too late for a train and was placed on the floor of the saloon. The man was in awful pain and attempts were made to secure a hand car without success. The section boss refused to let the car go. A telegram to division headquarters failed to release the car. The hotel keeper finally berated the fellow workers of the injured man, telling them they were a poor lot of lumber-jacks to let a comrade lie on the floor in such pain until the following day. At last the lumber-jacks broke into the section house and seized the handcar. The injured man was rolled into blankets, placed on the car, and the car was pumped to Federal Dam. Here a team was secured and the injured man taken to Bena, on the Great Northern railway, and placed aboard a train which took him to the hospital at Bemidji the same day. In this particular case the employer's timekeeper accompanied the men on the handcar.

The primary reason why men were continuously leaving the camps was that sanitary conditions were very poor. Another reason is that men are sent to the lumber camps who do not understand the work. After these men have worked out their employment fee, hospital fee and advanced railroad fare they are frequently discharged.

The men who are sent to the camps by the employment agencies were usually sent to Camp No. 1. This camp was usually crowded, and with the arrival of the new men there was not sufficient bunk room for them and men were compelled to sleep on the floor of the bunk house. This was of frequent occurrence.

The following wages were paid: Foreman, \$75; timekeeper, \$40 to \$50; cooks, \$65; funkeys, \$30; sawyers, \$30; canthook men, \$35 to \$40; teamsters, four horse, \$40; two horse, \$30 to \$35. These were the wages before December 11. On that date a cut was announced from \$35 to \$26. Most men who were sent up as swampers at wages from \$20 to \$26 were paid off at \$20. No distinction was made if a man quit or was discharged. When the cut was made about fifty men quit as a result. The timekeeper at Camp No. 4 stated that all men other than those enumerated above were hired at from \$26 to \$35, but were paid at the minimum rate whether they quit or were discharged.

The commissary is located at the headquarters camp. It was a building 24x24. There were four bunks occupied by the foreman and timekeeper. Supplies were sold to the men as follows: Smoking tobacco, brands Tuxedo and Union Leader, 10 cents a package; chewing tobacco, brands Climax and Spearhead, 10 cents a cut; Swifts Deal soap, 5 cents a bar; underwear, \$2.00 a garment; German socks, at from 25 cents to 60 cents a pair, and overalls at \$1.00. Earlier in the season the goods were sold at an advance on these prices, but later were reduced to store prices. The goods were sold to the men and charged to them on the ledger to be deducted from their wages on regular pay days.

Camp No. 1.

This camp was known as headquarters camp and was situated two and one-half miles from Boy River. It consisted of two bunk houses, two stables, one warehouse, one commissary, one blacksmith shop and one cook house and dining room. The houses were all built of logs.

The two bunk houses were of log construction with a pole roof covered with tar paper and were 36x27x11 feet. Each contained twenty-six double-deck bunks, two men in a bunk. The bunks were on both sides of the rooms, and the average air space was about 102 cubic feet per person. The

bunks were constructed of poles covered with balsam boughs with a covering of hay. The lower bunks were about eighteen inches above the floor level, but the floors of the bunk houses did not extend under the bunks and the men were consequently exposed to frost and dampness. Three blankets were issued to each man. There were no facilities for hanging the blankets for an airing, so they remained in the bunks. No bolsters or pillows were furnished.

The space underneath the bunks was used for cast-off clothing and other rubbish. The size of the bunks was 4x6.2. With the crowded conditions which often prevailed in this camp three men were required to occupy one bunk. Then ventilation of this bunk house consisted of one 2x2 wooden hinged door in the roof and the door at the end of the bunk house. The other bunk house had two of these ventilators. (For about 100 men.) Both have a window 24x26 inches at each end of the building and a skylight of the same size in the roof.

The floors were made of rough boards which make it very difficult to scrub them or keep them clean. The scrubbing process consisted of pouring a pail of water on the floor and sweeping it over the floor with a broom. The timekeeper informed us that they were scrubbed weekly, but information from the men who had been there for some time was to the effect that they were scrubbed once a month.

The bunk houses were heated by the regulation camp stove. Wood was burned and the men made no complaint about suffering from cold. This lack of complaint of the cold and the inadequate ventilation facilities show how little the air was changed.

Each bunk house had four tin wash basins. Three roller towels were allowed each day. In addition to the windows mentioned above there was one double window above the sink. The waste water was run out of a hole cut through the logs and ran back under the floor of the bunk house. Barrels of water are kept filled for the lavatory and each bunk house was supplied with drinking water. The drinking water for this camp was secured from the well of a nearby homesteader and was of good quality. All other water used was procured from a well sunk by the company. It was located about 150 feet from the privy and about fifty feet from the door of the kitchen where the kitchen refuse was thrown out.

The cook house contained two ranges upon which all the food was cooked. The root cellar was adjacent to the kitchen. One cook and three funkeys were employed. Three tables running the length of the room seated 112 men. The cook house and dining room were fairly clean. They were required to scrub the kitchen three times a week and the dining room once a week. The floors were of rough boards and difficult to keep clean. The kitchen utensils were fairly clean. For the most part they consisted of lard cans. They complained that they had difficulty in securing proper utensils. Tin plates and tin cups were used. Dishes used for serving victuals were also of tin. The salt shakers were of tin and consequently very insanitary. Knives, forks, spoons and other table equipment were greasy after being washed.

The camp set a good table, however, and the men made little complaint concerning the food. The cook stated they had been feeding an average of 110 men. A sign was posted in the dining room. "No Talking." The following supplies were furnished to each of the camps: Fresh beef, mutton and salt pork, potatoes, rutabagas, kraut, canned tomatoes and corn. Raisins, peaches, apples and pumpkin are used for pies. Coffee is of good quality. Tea also was served. Condensed milk was used. Oleo-margarine was served and signs posted in the dining room. Every camp baked a good quality of bread, biscuits and pastry.

The refuse from the kitchen is thrown out of the back door of the kitchen on the surface of the ground. There was no evidence of any pit. The privy for the camp was a pole enclosure 6x12 feet square with a low roof. It had an open pit with two poles to sit on and a pole floor. The excrement was up to the height of the seat. There was no evidence of lime having been used at any time during the season. About one hun-

dred men were required to use it. The privy was located about twenty-five feet from the bunk house. There was a separate privy for the foreman, timekeeper and kitchen crew.

The facilities for keeping clean are far from adequate. There were two tubs used by the cook and flunkies for washing towels and one washboard. Hot water for the men to wash clothes was out of the question. There were no facilities for drying wet clothes unless the men fastened hay wire together and stretched them across the bunk houses. The conditions under which the men were housed, with the inadequate facilities for keeping clean, made it impossible for the men to keep their bodies free from vermin.

The conditions in and surrounding Camp No. 2 of this company were worse than in their other camps. The deputies stated that "both of us regretted that we did not have authority to order all the men out of the camp and burn the place to the ground." All along the paths leading into the camp were piles of excrement showing the poor discipline under which the camp was conducted. The privy was the usual pole enclosure, so low that a man of ordinary stature had to stoop to get into it. The excrement was up to the poles serving as seats and there was no evidence of lime having been used at any time. It was as filthy as it could possibly be and the men could not be blamed for going outside.

The cook house at this camp was also in a bad sanitary condition. It was built on a slope, necessitating an off-set from the kitchen to the dining room which made it more difficult to keep the place clean. The floors were made of rough lumber. The kitchen and dining room equipment was the same as at Camp No. 1, but was greasy and dirty and much in need of scouring. Ventilation was furnished by two door ventilators in the roof. The supplies were the same as furnished to the other camps, but there was evidence of negligence on the part of the cook in handling food, especially the meat. This negligence was only in keeping with the camp in general. The root cellar had a pole floor. It was in an insanitary condition.

Camps No. 3 and 4.

Camps No. 3 and 4 were in charge of experienced loggers who enforced discipline and compelled the men to observe at least some of the decencies. But the bunk houses and other equipment furnished by the employer did not permit a really decent camp.

A very different type of camp from that described in the foregoing illustration (which is unfortunately typical of a large number of the camps in the woods) was that of the P. & H. Co. These logging contractors operate two camps for cutting posts and poles near Boy River. One camp is located about four miles northeast of Boy River and a so-called landing camp is less than one mile from the depot. The timekeeper stated that about 300 men had been received for both camps this season. The men were employed through two employment agencies in Minneapolis and one in Bemidji. The superintendent stated that about 45 per cent of the men stayed the entire season. The superintendent of these camps was held in high esteem by the men. He treated them well and showed them every courtesy. The timekeeper did the same. The latter was responsible for the condition of the camps and made a daily inspection. There was a marked difference in the demeanor of the men in these camps as compared with those in other camps visited. They seemed satisfied and were proud of their outfit. They were charged \$1 a month for hospital fee for a hospital at Bemidji, as in the other camps.

The cook house was built of matched lumber. Full sash windows furnished good light. The ventilation was good. The dining room had a capacity for forty men. Granite dishes were used on the tables and were clean. The cooking equipment was complete in every detail and clean. Talking was prohibited in the dining room during meals. The kitchen and dining room were scrubbed three times a week. One cook and two flunkies

were employed. The neatness and cleanliness about the kitchen and dining room was in marked contrast to the camps previously inspected.

The bunk house was built of lumber and measured 32x24.5x11 feet. Its capacity was eighteen men, two in a bunk and the average cubic feet of air space per man was 466 cubic feet. The bunks were double-deck and filled with hay. Several of the men had mattresses. Three blankets were furnished to each man. The floors were of smooth lumber and were scrubbed twice a week with chloride of lime. Three wash basins, soap and towels were furnished. Clean towels were placed in a rack and there was no scarcity of them. The bunk house was supplied with water for all purposes. Once a week it was fumigated with formaldehyde. The men had all facilities for keeping clean and drying clothes. The privy was constructed of boards and was scrubbed weekly. Lime was used and it was in good sanitary condition. The commissary furnished supplies of all kinds required by the men at store prices. No advance on store prices has ever been in force.

In the other camp of this company the cook house was well equipped, well lighted, neat and clean, the ventilation good, and the seating capacity in the dining room ample for all in the camp. The store room had a pole floor and was neat. The food was clean and the water hauled to camp of good quality.

The bunk house was constructed like that in the other camp and equipped with roomy bunks. It had a capacity of sixty-eight men, but its average air space per man was only 194 cubic feet. The bunks were equipped as in the other camp, but the superintendent stated that the company was considering the advisability of replacing the bunks with sanitary iron bunks, and also the use of mattresses.

The privy, however, was not in keeping with the otherwise clean condition of the camp. The excrement was even with the floor. The use of lime was not in evidence. Refuse from the kitchen was dumped on the surface of the ground about fifty feet from the kitchen.

The conditions in this company's camps are much better, as has been stated, than in most of the camps. They are not as good as is perfectly practicable, but they are far superior to those camps concerning which the reports of the inspectors constitute a dreary repetition of such phrases as the following:

"The floors are uneven, dirty and unsanitary. Through the broken floor near the wash sink we could see stagnant and ill-smelling water which had drained there from the sink." "The building has one window and one 2x2 ventilator." "Wash sink contained one dirty basin and one roller towel was furnished." "In the privy the excrement was above the floor level."

Legislation regulating ventilation, sanitation, and lighting of bunk houses and kitchens, and state inspection of these camps, with adequate power in the hands of the authorities to enforce their orders is needed to establish decent conditions in these camps.

OCCUPATIONAL DISEASE REPORTS.

Chapter 21, G. L. 1913, required physicians attending on or called in to visit a patient whom he believes to be suffering from poisoning from lead, phosphorous, arsenic or mercury or their compounds, or from anthrax, or from compressed air illness, contracted as a result of the nature of the patient's employment to send a report of the case to the commissioner of labor.

The reports rendered under the provisions of this act have been as follows: Lead poisoning, 9 cases, all of which were chronic; copper and arsenic poisoning, 1 case; gasoline poisoning, 1; ammonia poisoning, 1; poisoning from fur dyes, 2 cases; typewriter's cramp, 2 cases; paralysis

of fingers due to knitting lace, 1 case. Some of these occupational diseases were not of types mentioned in the law, but are recorded here as interesting illustrations of occupational disease risks.

The lead poisoning cases are the ones of most importance. The occupations of the ones afflicted with this terrible disease were: Painters, 6; typesetters 2, and paint grinder in factory, 1. The man afflicted in the arsenic poisoning case was a pressfeeder, while the men poisoned by fur dyes were both furriers employed in St. Paul factories. The man overcome by ammonia was a morgue keeper.

These cases are of course but a fraction of the occupational disease cases that actually exist in the state. The investigation of this subject carried on in Illinois, New York and other states have revealed that occupational diseases develop rapidly in manufacturing states. The last report of this department (pages 285-287) shows nineteen different Minnesota industries in which certain definite occupational diseases have been discovered in other states where the subject has been investigated. We therefore believe that in order to prevent the development of occupational diseases on a large scale we are now justified in recommending that the 1915 session of the Minnesota legislature enact into law the bill prepared by the American Association for Labor Legislation for the prevention of occupational diseases. This law has already been passed by Pennsylvania, Ohio, New Jersey, and Missouri, and will unquestionably be passed this year in a number of other states. Copies of the bill will be put into the hands of the committees on labor in the two houses of our legislature and it is the sincere hope of this department that the legislature will see fit to act favorably on the matter.

DELINQUENCY INVESTIGATIONS.

Inspectors frequently discover cases of delinquency, neglect and dependency while investigating child labor and truancy cases. As a rule these cases could be handled by the local authorities, but are not. The circumstances generally demand action and the department has permitted its inspectors to ascertain the facts and prosecute the offending parties. Several investigations were made because of complaints filed with the department. Forty-four such cases were investigated in the past two years, nineteen of which are reported fully in the report of the bureau of women and children.

In four cases little tots were selling papers on the street at night. Their parents were notified to keep the children off the streets. Three cases revealed evidence of non-support. In one of these the father was placed under \$500 bonds and ordered to pay \$8 a month for the support of his child. In another the father was fined \$45 and sentence suspended for eight months on condition that he support the child. In the third case two children were committed to the state school at Owatonna. Eight children were found tending bar in saloons. They were all employed by their parents. The parents were notified to discontinue the practice.

Seven complaints that pool room proprietors were allowing minors to play games of chance and were selling tobacco to minors were investigated. In five cases the inspector could find no evidence of law violation. The other two cases were found true and the proprietors prosecuted. One was

fined \$50 and sentence suspended for eight months. The other was fined \$25. Two boys found playing pool in the last mentioned place were also prosecuted. One, a 17-year-old boy, was fined \$1. The other, a boy of 13, was adjudged delinquent and placed on probation.

A delinquent boy was accused of cutting a pupil of another school with a knife. He had attended three different schools and in all was declared incorrigible by the teachers. Arrangements were made to have him attend in an ungraded room in another school. Here the boy was later reported to be doing fine. A parent was prosecuted for cruelty to his wife and their 11-year-old son. He was given a straight jail sentence of thirty days without the option of a fine. A complaint that a carnival company was giving indecent and immoral exhibitions and employing young girls in them was unfounded.

WAGE COLLECTIONS.

Hundreds of workmen and women call on the department each year to ask aid in collecting wages due them. Hardly a day passes that does not bring one or more of them to our doors. In the great majority of cases the workmen have quit before pay day and the employer refuses to pay until the regular pay day. Unless there are extenuating circumstances surrounding the case these men are told the law offers no remedy. In special cases where peculiar circumstances justify such action an effort is made to collect the wages. A large number who were discharged and told they must wait until pay day for their money, were referred to the legal aid department of the Associated Charities of the three large cities. Those agencies were usually successful in getting immediate payments.

The allegations in some cases were such that the department made an investigation of them. One particularly pathetic complaint was preferred by ten Austrian immigrants working for a railroad contracting firm near Cologne, Minnesota. The men stated they were working on a night shift. On the fifth night, shortly before midnight, one of the men was taken ill but remained at work. The foreman upbraided him for lagging, grabbed him by the neck and threw him to one side, used profane and abusive language towards him and then discharged him. When the men went in to their midnight meal they discussed the discharge and agreed not to return to work unless the discharged man was reinstated. At 12:30 o'clock all ten men returned to work. The foreman told the discharged man he could not work, so the other nine men quit and demanded their time. They were told they could not have it until the next day. The following day the men called at the office for their time. As each man entered the office he was handed his time check and then brutally assaulted by the three proprietors and the timekeeper. After the fourth man had been assaulted in this manner the rest of the men became terrified and ran away. They were pursued by the four, and one proprietor shot at them as they ran. They were followed one mile to the depot, where several more were assaulted. The others ran on down the tracks for three-fourths of a mile further, where the last man was captured and beaten. They came to St. Paul and filed their complaint with the commissioner of labor. A deputy returned with them to Cologne, where warrants for the arrest of the four culprits were procured from the county attorney for simple assault. The cases were post-

poned for nine days, and then at a conference between the county attorney and a representative of the Austrian consul it was agreed to dismiss the cases for the purpose of making a more serious charge of assault with dangerous weapons. The grand jury, however, failed to return an indictment.

A merchant in Northern Minnesota wrote that he cashed some time checks for woodsmen. When he tried to collect from the logging company issuing them he was told the men must present them in person at the office of the logging company. This meant a walk of 29 miles, as the men had no money for railroad fare. The matter was taken up with the logging company, which agreed to furnish free transportation to the men thereafter.

A man who called at the office of the department stated he had been employed five days, and in that time had worked 44 hours overtime. He was referred to the legal aid department of the Associated Charities to learn if he could collect for this overtime.

The department made such personal investigations in a total of 209 cases. The wages were collected in 108 cases, amounting in all to \$1,637.89. The smallest amount was 69 cents, the largest \$76.55 and the average \$15.16. Collections were made in 32 other cases, but the amounts were not stated in the reports.

MISCELLANEOUS INVESTIGATIONS.

1. A workman complained that after working 15 years for one firm he was discharged for refusing to work on a Sunday. He stated his reason for refusal to work was because his daughter was to be confirmed. The manager of the company stated the discharge was due to a misunderstanding and the man was reinstated in employment.

2. At the request of the health department of Minneapolis an inspector was detailed to assist them in having a wood floor in a basement kitchen removed. The proprietor agreed to do this when the state laws were explained to him.

3. A workman complained that his son, who worked in a box factory, was overworked to exhaustion; that the employes were compelled to work 14 and 16 hours a day, and that another young man who had become exhausted was threatened with discharge unless he worked 16 hours in one day. The firm stated that the overtime was caused by a fire in another of their plants. They said they usually discouraged overtime employment and in this case it was only temporary.

4. The competitors of a general merchandise store in a small town complained that this store was selling goods on Sunday. The matter was taken up with the county attorney, who secured a promise from the owner that it would not occur again.

5. A complaint was filed with the governor by an engineer against a boiler inspector in the northern part of the state and was referred to this department for an investigation. The complaint stated in substance:

"I have been employed as locomotive engineer for the _____ Mining Co. for the past four seasons. On the 25th of July I was told to take five days' lay-off for misrepresenting the law to the other men. Now if I understand there is no law that a locomotive engineer or fireman must take a license from the boiler inspector." Mr. _____ (the state boiler inspector) insists on all engineers and firemen to take out license and he charges

them whatever he can get, from one to five dollars, and a person does not have to see him nor take an examination. Send him two dollars and he will send the license. I personally know of a case where a foreigner got his license that way and was put at running a hoisting engine at the _____ mine, and I know he was not competent but he had a license and could be got for \$2.50 per day."

"I do know of another case that an inspector sold a foreigner a license that could not read and the lad came to me to know what it was and I told him it was a fake fireman's license, and he made me understand that he thought it was his naturalization papers. Another man had to take out a steam engineer's license to run an electric hoist."

"I was approached by one inspector and he held out a five dollar bill and said, 'Here, keep your mouth closed, this is the way I make my living.' It seems to me that the company is in with the inspectors as they will discharge a person if they do not get a license."

"Now I claim there is not such law that a locomotive engineer or fireman must have a license, but there is for stationary, portable and hoisting engineers. Could state a great many other cases of this license graft. Am willing to give all information that I can at any time."

In a subsequent communication to a deputy commissioner of labor in answer to a request for the names of men who were discharged for not securing a license, or men who knew of such discharges, the complainant gave the names of two firemen who he said were discharged and the names of several others who knew of similar cases. Writing further he said:

"There was a man by the name of _____ running a hoisting engine at the _____ mine who told me that he got a license for two dollars and that the master mechanic got it for him and that he did not take an examination and I do know that he is not a competent man." "I got a license two years ago from Inspector _____ whom I never saw and a man by the name of _____ told me that he got one the same way."

"The inspector that is now in is _____. He told the engineers and firemen that they must take out a license according to law and would charge them whatever he could get, and then the master mechanic told those that did not want to get them to get the license or get off the job."

A deputy commissioner of labor who was detailed to investigate the matter called on the men whose names were submitted. They stated they had heard that a couple of men were discharged for not taking out licenses but could not state positively that such was the case. The deputy reported that "the general feeling of employes about the mines was that something should be done to reorganize the boiler inspection department and put it under control of some department that would see that it was conducted in proper manner."

The deputy was informed that the boiler inspector had issued firemen's licenses and charged a fee for them. Some of the men promised to send him some of the certificates, but, although he wrote them again, they did not answer his letters. The men interviewed all admitted they had taken out a license, but would not say it was compulsory to do so in order to hold their job with the mining company.

The conclusions of the inspector were as follows:

First—The five day's layoff given the complainant was a grievance that would have received consideration if presented to the president of the mining company.

Second—The boiler inspector has no authority to issue licenses to locomotive engineers and firemen or to compel inspection of locomotive boilers.

Third—That the boiler inspector was acting as his predecessors have in the past. That the employes of the mining company were aware of the fact that he had no authority in the premises and that the licenses issued were for stationary engineers and firemen and not for locomotives.

Fourth—That there are instances where licenses are issued to applicants without examination, and if this practice is allowed to continue it will prove disastrous to the people of this state.

Fifth—That the complainant is mistaken in his charge that the mining company would discharge men who failed to take out the license. The motive of efficiency, the only motive the mining company would have, is denied by the officials of the company, and the complainant has failed to establish any other motive.

As a final conclusion the deputy recommended a thorough investigation of the methods of boiler inspection and issuing of engineer's licenses in the entire state.

PART IX.

LABOR ORGANIZATIONS.

The department presents herewith what it believes to be the first complete report ever compiled concerning the labor organizations in Minnesota. The data is presented in four tables, showing the date of organization, the membership and number of unemployed members on May 1, 1914, the schedule of wages and working hours, increases and decreases of wages and working hours during the last two years and benefits paid to members. It also presents in concise form the apprentice rules of the trade unions and a short history of the strikes and lockouts occurring during the two years ending July 31, 1914.

There are 425 local organizations in the state, located in 53 cities and towns, with 37,083 members, of whom 36,568 are men and 515 are women. Women members were reported from 31 local organizations. The number of unemployed members was 2,375, or 6.4 per cent.

The city of Minneapolis leads in the number of unions and members, having 90 local unions with 14,237 members. St. Paul follows with 87 unions and 10,153 members. There are also 11 Twin City unions whose members are about equally divided between the two cities. Dividing their 589 members between the Twin Cities the membership in Minneapolis is 14,532 and in St. Paul 10,447. Duluth has 43 unions with 3,068 members.

The oldest organization with continuous existence is the Brotherhood of Locomotive Engineers, Division 102, organized in 1870. Seven other organizations were organized prior to 1880, viz: Brotherhood of Locomotive Engineers, Division 150, St. Paul, in 1872; Typographical Union No. 42; Brotherhood of Locomotive Engineers, Division 180, of Minneapolis, and Division 144 of Staples in 1873; Brotherhood of Locomotive Firemen and Enginemen No. 61, St. Paul, in 1876; Brotherhood of Locomotive Engineers, Division 82, Minneapolis, and Division 9, Waseca, in 1878. The quarter century mark has been passed by 76 unions having been organized in 1889 or prior thereto.

Wage increases were reported by 137 unions and ranged from 1 cent to 20 cents an hour. The largest increase—20 cents an hour—was reported by the Bricklayers' Union of New Ulm. The highest daily wage, \$7.50 was reported by Brotherhood of Locomotive Engineers, Division 474, of St. Paul. The Virginia Bricklayers' Union was a close second with a wage of \$7.20 a day. Decreases in the union schedule of working hours, ranging from two hours a week to four hours a day were reported by 34 local unions.

Apprentice Rules.

When the unions are well organized and powerful enough to enforce rules it is customary to limit the number of apprentices allowed in a shop. They frequently have age limits, within which the apprentice must be at the time of beginning his apprenticeship, they require certain terms of service and registration with the union, and limit the number of apprentices according to the number of journeymen employed. Sometimes the rules are promulgated by the national or international union, but generally are local regulations. The rules of the several unions are as follows:

Asbestos Workers' Union—Must be over sixteen years of age, serve four years, and allow one to every four journeymen.

Bakers and Confectionery Workers' Union—Must be sixteen years of age and serve three years; apportionment varies in local unions; highest is one to five journeymen.

Barbers' Union—Must serve three years and be nineteen years of age to secure a license. Apportionment varies, usually one to each shop.

Bill Posters' Union—Minneapolis union requires one year's service. Other unions have no rules.

Blacksmiths' Union—Must be between sixteen and twenty-one years of age, serve four years, and allow one apprentice to a shop and one additional to every five journeymen.

Boilermakers' Union—Must be between sixteen and twenty-five years of age, must serve four years and allow one to a shop and one additional for every five men.

Bookbinders' Union—Must be sixteen years of age and serve five years. Apportionment varies, highest is one to four men.

Boot and Shoe Cutters' Union—Must serve four years. Wages are regulated for each year by the union.

Brewers' Union—Must be over seventeen years of age and serve two years. Minneapolis union allows one to fifteen men and only two to a shop. St. Paul union allows one to first fifteen men and one additional for every ten men. Beer Bottlers' Union of St. Paul allows 25 per cent of employees to be learners.

Bricklayers' and Stonemasons' Union—Must be between seventeen and twenty-one years of age and serve three years. Apportionment varies, but is usually one to a contractor, except that when both the contractor and a bricklayer have a son then both may be taught the trade.

Bridge and Structural Iron Workers' Union—Must serve three years.

Broom Makers' Union—Must be over sixteen years, serve three years and allow one to every five men.

Carpenters' and Joiners' Union—Must be between sixteen and twenty-two years of age and serve three years. Apportionment varies; some unions allow one to three men and others up to every ten men.

Cement Workers' Union—Must be over sixteen, serve four years and allow one to every five men.

Cigarmakers' Union—Must be over sixteen and serve three years. A shop must have one journeyman steadily employed. Other apportionment is optional with local unions, who generally permit two to five men, three to ten men, four to fifteen men and five to twenty-five men.

Coopers' Union—Must be over sixteen, serve two years and allow one to ten men.

Electrical Workers' Union—Must be over sixteen and serve four years. Apportionment varies; some unions allowing one to two journeymen and others one to each shop.

Electrotypers' and Stereotypers' Union—Must be eighteen years of age and serve five years. Electrotypers' union allows one to three journeymen, stereotypers allow one to a shop and one additional for every five men.

Elevator Constructors' Union—Must be between eighteen and twenty-one years of age, serve four years, allow one to ten men, and union regulates wages.

Furriers' Union—Must be between sixteen and twenty-one years of age and serve three years.

Garment Workers' Union—Cutters must serve three years.

Glass Workers' Union—Must be over eighteen years of age, serve five years, and allow one apprentice to four journeymen.

Granite Cutters' Union—Cutters must serve three years and cutters and tool sharpeners five years. Allow one apprentice to four granite cutters and one apprentice to two tool sharpeners.

Horseshoers' Union—Must serve four years, three years as floor man and one year as fireman. Allow one to each shop employing one or more journeymen.

Lathers' Union—Must be between sixteen and twenty-one years of age and serve two years. Allow one apprentice to each local union and one additional for every twenty members.

Leather Workers' Union—Must serve three years. Allow one apprentice to each ten men, with a limit of five apprentices.

Lithographers' Union—Must serve four years. Allow one to four journeymen.

Machinists' Union—Must be between sixteen and twenty-one years of age and serve four years. Allow one apprentice to a shop and one for each additional five men. Must be changed to a different type of machine at least every four months.

Marble Workers' Union—Must serve three years. Allow one to every five men.

Molders' Union—Must be over sixteen and serve four years. Allow one apprentice to a shop and one additional for every five men.

Painters' Union—Must be between sixteen and twenty-one years of age and serve three years. Apportionment varies, some unions allowing one apprentice to three journeymen and others up to twenty men. Indenture papers must be signed and filed with the union. One local union regulates the wages.

Patternmakers' Union—Must be sixteen years old and serve five years. Allow one to each shop and one to every eight men thereafter. During apprenticeship he must attend a school teaching technical courses.

Paving Cutters' Union—Must be over fifteen years old, serve two years, and allow one every two years to each ten journeymen employed.

Photo Engravers' Union—Must be sixteen years of age and serve five years. Allow one apprentice to four journeymen and one for each additional man. Must employ one journeyman in a department before being allowed an apprentice, and apprentices must be distributed among the different departments of work. Apprentices must be indentured to both the employer and the union.

Plasterers' Union—Must be between sixteen and twenty years of age and serve four years. Some unions allow only one apprentice to a shop and others allow one additional for every ten men. Apprentices must be indentured and registered with the union. One union requires a contractor to be in business for one year before being allowed an apprentice. The Ornamental Plasterers' Union allows one apprentice to every five journeymen.

Plumbers', Gas and Steamfitters' Union—Plumbers must serve five years and fitters four years. Plumbers' union allows one apprentice to each shop and steamfitters' union one to each journeyman.

Pressmen's Union—Must be over eighteen years and serve four years. Allow one to a shop and one additional for each four men.

Quarry Workers' Union—Must serve one year and allow one to six journeymen.

Sheet Metal Workers' Union—Must be sixteen years of age and serve in some unions three and in others four years. Apportionment is one to four men in some unions and one to six men in the majority of locals.

Stage Employees' Union—Must serve one year.

Steam Shovelmen's Union—Must work as fireman one year to get a card and two years before he can become a cranesman and must crane three years to be eligible to become an engineer.

Stone Cutters' Union—Must be between sixteen and twenty years of age and serve four years. Apportionment varies from one to twelve men up to twenty-five men.

Tile Layers' Union—Must serve two years as helper and two years as apprentice. Allow one to every five men.

Typographical Union—Must be over sixteen years of age and serve four years. All unions allow one to five journeymen, except Minneapolis, where they allow one to five men or major fraction thereof in job offices and one to eight men or major fraction thereof in newspaper offices. Apprentices must take I. T. U. technical course.

Upholsterers' Union—Must be between sixteen and twenty-one years of age and serve four years. Allow two for the first ten journeymen and one additional for each ten men. Apprentices must work with a journeyman and when they do the same amount of work must receive the same pay.

Wood Carvers' Union—Must serve four years and allow one to every five journeymen.

Strikes and Lockouts.

There were no very serious labor troubles in Minnesota in the two years ending July 31, 1914. There were strikes involving hundreds of men, and in one case over 1,000 men, but they were settled in a short time without any rioting or other disagreeable features. There were 38 difficulties in all, of which 29 can be termed strikes and 9 lockouts. They involved 3,845 employees. Wage difficulties and efforts to get shorter hours of labor were responsible for 21 difficulties, 16 being for increases in wages and shorter hours and 5 against reductions in wages.

The locality, the union or group and the numbers involved were as follows.

*Lumber pilers' strike, Duluth.....	1,032
*Miners' strike, Crosby	830
Ice wagon drivers' strike, Minneapolis.....	420
Shoe workers' strike, St. Paul.....	300
Plumbers' strike, Minneapolis	200
Street car men's lockout, Duluth.....	120
Upholsterers' lockout, Minneapolis	121
Tile layers' strike, Twin Cities.....	95
Paving cutters' strike, St. Cloud.....	60
Plasterer tenders' lockout, Minneapolis.....	54
*Dock laborers' strike, Duluth.....	42
Paper makers' strike, Sartell.....	25
Paper makers' strike, Little Falls.....	20
Paper makers' strike, Grand Rapids.....	16
*Oil mill workers' strike, Minneapolis.....	55
Molders' strike, Minneapolis.....	53
Upholsterers' strike, Twin Cities.....	37
Upholsterers' strike, St. Paul.....	18
Marble workers' lockout, Twin Cities.....	35
Paving cutters' lockout, Sandstone.....	34
Cigarmakers' strike, Minneapolis	33

*Unorganized.

Electrotypers' lockout, Minneapolis	30
Broom makers' strike, Minneapolis.....	26
Teamsters' strike, Minneapolis.....	17
*Garment workers' strike, St. Paul.....	15
Electrical workers' strike, St. Paul.....	14
Bill posters' strike, Minneapolis.....	14
Plasterers' lockout, Minneapolis.....	13
Bill posters' strike, Duluth (two strikes, twelve each).....	24
Cement workers' strike, St. Paul.....	11
Cement workers' lockout, St. Paul.....	4
*Tobacco strippers' strike, St. Paul.....	8
*Broom makers' strike, St. Paul.....	8
*Waitresses' strike, Minneapolis.....	8
Coopers' lockout, Minneapolis.....	8
Waitresses' strike, Minneapolis.....	5
Total	3,845

A short history of each difficulty, its causes, numbers involved, how settled, and (when possible to obtain the information) the time lost and costs to the men, are given in the following resume:

Lumber Pilers' Strike.—On June 2, 1913, the lumber pilers employed at the two sawmills of the Alger-Smith Lumber Company of Duluth went on a strike for an increase of 10 per cent in wages. On June 4 and 5 the pilers employed by the Virginia & Rainy Lake Lumber Company, the Scott-Graff Lumber Company and the Mullery-McDonald Lumber Company struck for the same increase. There were 92 strikers and 940 other mill workers were thrown out of work by the strike. Some of the men reported for work on June 11, but their numbers were so small that the mill owners refused to start the mills. On June 16 the mills opened up with all the old force except about 30 men. The loss in wages was about \$26,740 and the firms reported a loss of about \$1,300. Total number of days lost by all men, 10,320.

Miners' Strike.—The miners employed on the Cuyuna Range near Crosby went on a strike on April 10, 1913, for an increase of wages, shorter hours and changes in working conditions. There were 830 men employed in four mines. The mine owners made no effort to replace the men but said they could not grant their demands as the mines were then operating at a loss. The operators just closed down and waited for the men to return. A representative from this department, aided by the business men of Crosby, succeeded in getting a conference committee of the employers and employees together. They continued negotiations until April 19, when an agreement was reached and signed by both parties. No concessions were made to the men except to cut out a short five-hour shift on Saturday night and substituting an extra hour's work on the other five nights of the week. This made a night shift of nine hours a day. The day shift works eight hours.

Ice Wagon Drivers' Strike.—In May, 1914, the drivers employed by the Cedar Lake Ice Company and the Artificial Ice Company in Minneapolis struck for an increase of wages. The strike lasted eight days, when it was settled by a compromise. The men received a raise of \$2.50 a month and recognition of the union. Number involved, 420; loss in wages estimated at \$10,000. It cost the union approximately \$2,000.

Shoe Workers' Strike.—On February 1, 1914, 300 shoe workers employed by the Minnesota Shoe Company and the Foote-Schulze Company of St. Paul went on a strike claiming that members of their union were discriminated against and discharged because of membership in the union. About 100 were members of the union and 200 non-union. A number of others were thrown out of work because of the strike, but obtained work elsewhere and lost little or no time from work. The strikers were members of the United Shoe Workers' Union. Other employees of these firms were members of the Boot and Shoe Workers' International Union, an organization affiliated with the American Federation of Labor. The rivalry of the two organizations caused considerable bitterness among the members of both and these quarrels were the reason why the men had been discharged. The places of the men were gradually filled and work re-

sumed. The men called the strike off on July 1, 1914, after it was irretrievably lost.

Plumbers' Strike.—The plumbers of Minneapolis struck in June, 1913 for an increase of 50 cents a day in wages. They were out six days when the demand was granted by giving them a wage of \$5 a day. Members involved, 200. There were no costs to the union.

Street Car Men's Strike.—On September 9, 1912, 120 motormen and conductors employed by the Duluth Street Railway Company refused to run any more cars until the company had reinstated nine men who were discharged two days prior to that date. The strikers claimed the men were discharged because they were officers of the union. The company gave no reasons for the discharge. The places of the men were gradually filled and the strike was declared lost by the men on November 7, 1914. The loss in wages was estimated at about \$1,600.

Paper Makers' Strike.—On May 30, 1913, the members of paper makers' unions in Sauk Rapids, Sartell, Grand Rapids and Little Falls went on a strike for the three-tour system or eight-hour day. The men were working 11 hours days and 13 hours nights, alternating every two weeks. All other paper mills in the state were working on the three-tour basis. The mill at Grand Rapids granted the demand of the men on June 6. The strike in the two other cities was lost. The places of the men were filled in a few days. Most of the men secured work at other occupations or left the localities. Those remaining, and officers of the union, are continuing their efforts to retard the mills as they regard the strike on until the firms capitulate. The members involved were: Sauk Rapids, 25; Little Falls, 20; and Grand Rapids, 16. The employers stated that they refused the men's demands because they were operating at a loss and the majority of their competitors in the country were operating on the two-tour basis. The latter statement was denied by the strikers.

Upholsterers' Lockout.—On December 31, 1913, the furniture manufacturers in Minneapolis locked out all their union uphoisterers, although they had an agreement with the union which expired on September 1, 1914. The men claimed it was an attempt to break up their union. One firm, which employed 12 men, made a settlement with the union in a short time, but the union claims the strike is still on in the other firms. The firms are operating with non-union men. There were 117 union and 4 non-union men involved in the lockout. The wage loss is estimated at about \$50,000 and the costs to the union at about \$20,000. Most of the men secured employment at other avocations or left the city.

Tile Layers' Strike.—The members of the Twin City Tile Layers' Union struck on January 1, 1914, for an increase in wages and more board money when working out of town. Prior to that time the allowance for board was \$4 a week for towns east of the Missouri river and \$6 for towns west of the river. At the end of ten days the strike was settled by securing an allowance of \$5 and \$7 for board money east and west of the Missouri river respectively, but no increase in wages. Members involved, 60 tile layers and 35 helpers. Loss in wages, about \$3,875.

Paving Cutters' Strike.—The paving cutters of St. Cloud, employed by seven firms, struck on May 1, 1913, for an increase in wages. They were paid by the piece at the rate of \$40 a thousand for "grout" and \$37.50 for "stock." The strike was settled by granting the men a scale of \$42.50 a thousand for both grades. The time lost was 14 days and the wages lost \$2,688. Members involved, 60. The union paid out \$678.50 in strike benefits.

Plasterer Tenders' Lockout.—The plasterer tenders employed by nine Minneapolis firms were locked out in May, 1914, when they demanded an increase of 35 cents a day in wages. They were receiving \$3.25 a day. The difficulty was settled by granting an increase of 15 cents a day for one year and 20 cents commencing May 1, 1915. Members involved, 54; time lost, 7½ days each; cost to union, \$10.

Dock Laborers' Strike.—On May 23, 1914, 42 laborers employed on the coal docks of the Clarkson Coal Company at Duluth struck against a reduction of wages. The day previously the firm had posted a notice announcing a reduction from 20 cents to 18.5 cents an hour. A committee of the strikers called on the local representative of this department to protest against the state free employment bureau furnishing strike-breakers, and as the men were unorganized this representative offered to act as mediator in the strike. He pointed out to the firm that their competitors were all paying 20 cents an hour and had no thought of reducing wages. Upon this showing the manager was persuaded to reinstate the men at the old rate of wages. The time lost was three days.

Molders' Strike.—Prior to December 17, 1913, the Flour City Ornamental Iron Works of Minneapolis were employing union molders. On that date they announced that thereafter they would run an open shop. Thereupon 47 union molders went on strike and 6 helpers were discharged. The strike was lost and was declared off on September 19, 1914. There are no union men employed in the shop at the present time. About ten men received other employment during the strike, earning about \$100. The wages of the men were from \$3.50 to \$4 a day. They were paid a strike benefit of \$7 a week and the union had other costs amounting to about \$200.

Oil Mill Workers' Strike.—The employes of the Spencer-Kellogg Company, Minneapolis, manufacturers of linseed oil, went on a strike in March, 1913, for a reduction of hours from 12 to 8 a day. They were out 5½ days when the demand was granted and the men returned to work with the understanding that the question of wages would be readjusted later. There were 40 men involved and their wage loss was estimated at \$650. The men were unorganized.

At the same time the newspapers reported a similar difficulty between the Midland Linseed Oil Company and its employes, but the firm denied any such difficulty. However, they stated that the mill was closed down for repairs and during that time a number of "malcontents" made a demand for shorter hours. When the mill started most of the men returned to work, but they got rid of about fifteen men whom the firm did not want.

Telephone Operators' Strike.—In March, 1914, the Zenith Telephone Company of Duluth announced a change in the working rules of the operators. It had been a custom for the girls to work every third Sunday, for which they were paid \$1.50, and if they worked overtime evenings they were paid 75 cents extra. The new rule provided that when any girl worked on Sunday she would be given one day off during the week. The manager claimed that the girls lost two or three days a month anyway and that the new arrangement would not affect their earnings. The operators insisted it was a means of reducing their wage, which was as low as they could possibly live on, the maximum being \$34 and the minimum \$20 a month. A petition, signed by 39 girls, was handed the manager requesting that the contemplated change be not made and he was given 45 minutes to answer. At the end of 45 minutes no reply being forthcoming, the girls struck. Twenty-five minutes after the girls took this action the manager capitulated and announced no change would be made in the rules.

Upholsterers' Strike.—On September 4, 1912, the Twin City Upholsterers' Union went on a strike for a reduction of one hour a day or the 8-hour day. An agreement was reached on October 23, by which the men returned to work at 8½ hours a day. Members involved, 37. On October 5, 1912, 15 members of the union and 3 non-unionists employed by the Great Northern Railway Company struck for a reduction from 10 to 9 hours a day. The strike was lost and declared off in December, 1912. The men obtained employment elsewhere.

Marble Workers' Lockout.—The marble workers employed by the Drake Marble & Tile Company, the Northwestern Marble & Tile Company and the Twin City Marble & Tile Company of the Twin Cities were locked out January 13, 1914. The employers made an agreement with the Bricklayers' International Union whereby all marble work was to be done by members

of that union. The firms demanded that the marble workers take out cards in the bricklayers' union. The matter is still unsettled. There were 35 men involved, of whom 10 have secured work in other shops. The others have obtained employment off and on at other occupations.

Paving Cutters' Lockout.—The Paving Cutters' Union of Sandstone reported that its 34 members were locked out in March, 1913, and that the difficulty was settled by both sides making concessions. The cause and duration of the lockout was not reported.

Cigar Makers' Strike.—In January, 1914, the 33 cigarmakers employed by G. Pflaum & Sons, Minneapolis, demanded an increase in wages, which was refused, and the men went on a strike. The places were partly filled with non-unionists, and although the men secured work elsewhere they consider the strike still in progress. The loss in wages was estimated at about \$1,700, and the union paid out \$800 in benefits.

Electrotypers' Lockout.—The 30 members of the Minneapolis Electrotypers' Union were locked out on April 21, 1913. The men had presented an agreement prior to that date which called for a schedule of 48 hours a week. The employers refused to grant this and presented an ultimatum that the men agree to work 8, 9 or 10 hours a day as the employers see fit. The union rejected this ultimatum and the men were locked out. After being out 13 weeks the employers signed an agreement with a schedule of 48 hours a week, a wage agreement and recognition of the union. They had previously had no wage scale or agreement.

Broom Makers' Strike.—In July, 1913, the Broom Makers' Union of Minneapolis struck for an increase of 7 cents a dozen for making brooms. After 10 days the demand was granted. Members involved, 26. Loss in wages estimated at about \$600.

Teamsters' Strike.—On April 13, 1914, the teamsters employed by the Mattison Transfer Company of Minneapolis went on a strike. Their demands were \$15 a week wages, a 10-hour day, time and one-half for overtime, every other Sunday off, no docking, and recognition of the union. The strike was settled three days later by granting all the demands of the men. Number involved, 17; wage loss, \$34.

Garment Workers' Strike.—A workman reported to the Department of Labor and Industries that he was hired in Chicago in August, 1912, by an agent for Guiterman Bros. of St. Paul to come to that city and work in their cloak department. That he was guaranteed a minimum wage of \$20 a week. That on Monday, August 9, the foreman informed him he was working on piece work and at a rate by which he could not earn more than \$13 or \$14 a week. He demanded his full wages of \$20 and was discharged. Thereupon 14 others went on strike and demanded that the man be reinstated and under the conditions upon which he was hired. The firm submitted a copy of a telegram showing that they had offered these men a guarantee of \$15 a week. They stated that the men merely remained out one-half day to attend a conference, but returned to work at noon satisfied with the conditions of work. The first workman agreed to return to work, but did not do so.

Electrical Workers' Strike.—On November 11, 1912, 14 members of the Electrical Workers' Union, employed by the Minnesota Chandelier Company of St. Paul, went on a strike. They claimed the firm was discriminating against members of the union and refused to recognize a committee from the union. A member of the firm stated that the cause of the strike was that they discharged a foreman who took to drinking and who also gave away trade secrets to a competitor. When a committee composed of members of other unions, demanded his reinstatement the firm refused them. Thereupon the men walked out. The employer stated that he had no objections to the men organizing; on the contrary had always been a union man himself and approved of their organization. Two of the men returned to work almost immediately. The others eventually found work elsewhere. The aggregate time lost was about 168 days with wages at \$3 a day.

Bill Posters' Strike.—The Minneapolis Bill Posters' Union went on a strike in January, 1913, for an increase in wages from \$12 to \$15 a week. They were out two days when the demand was granted. The wage loss was \$84. Members involved, 14.

Plasterers' Lockout.—The Twin City Ornamental Plasterers' Union in September, 1913, requested the Saturday half holiday. On September 15, 13 members of the union were locked out by the Flour City Ornamental Iron Works of Minneapolis for refusing to work all day on Saturday. The difficulty has never been settled. The wage loss is estimated at \$2,000, and the costs to the union at \$100.

Bill Posters' Strike.—The members of the Duluth Bill Posters' Union were involved in two strikes. The first strike occurred in July, 1913, when the employers refused to pay double time for work done on legal holidays. The men were out one week when the employers agreed to pay the wages. Members involved, 12. In May, 1914, the union presented a new agreement which the employers refused to sign and the men struck. The agreement called for an increase of \$3 a week in wages and a reduction of two hours a day. After two days the agreement was signed for two years, granting the demands of the men. Members involved, 12.

Cement Workers' Strike and Lockout.—In July, 1913, 11 members of the St. Paul Cement Workers' Union went on a strike to unionize a job of Butler Bros., contractors. The strike was settled favorably to the union at the end of four weeks. The estimated wage loss was \$1,056. In March 1914, Cameron & Company, contractors of St. Paul, locked out four cement workers owing to a dispute relating to the jurisdiction of the Cement Workers' Union over concrete workers. The difficulty was never settled. The places of the men were filled and the men secured work elsewhere with very little loss of time.

Tobacco Strippers' Strike.—In February, 1914, eight girls employed by Hart & Murphy, cigar manufacturers of St. Paul, went on strike claiming a reduction in wages of 3 cents a pound, or from 10 to 7 cents, and also that the foreman was abusive. A representative of this department was asked to see the firm for the girls. The firm stated they had not reduced wages, but that the work for which the girls had received 10 cents a pound was being done in Cuba and the girls were given work for which they paid 7 cents a pound. The firm agreed to pay the girls 8½ cents a pound, and they returned to work the next day. The abusive language charge was unfounded.

Broom Makers' Strike.—On August 8, 1913, the broom makers employed by the Stewart Broom Company, St. Paul, went on strike to enforce a demand for an increase in wages of 5 cents a dozen for making brooms, or from 35 cents to 40 cents a dozen. They were out three days when the demand was granted. Men involved, 8. Loss in wages estimated at \$75. The men were not organized at the time.

Waitresses' Strike.—On July 12, 1913, 8 girls employed by the Eureka restaurant, Minneapolis, struck against a reduction in wages. When the law regulating the hours of labor for women went into effect it necessitated enlarging the working force one-third. The waitresses were receiving \$8 a week and their aprons were laundered free, which was valued at 50 cents. The manager's wife, who works as a cashier in the restaurant, told one of the girls that she wanted to talk to them about a proposition of having their wages cut 50 cents a week. The girls got the impression somehow that the wages were to be cut to \$7 a week. One girl was a member of the I. W. W. and reported the matter to that organization. Just before the noon hour members of the I. W. W. filled the restaurant and ordered ice cream. Soon after noon one girl stepped up to the manager's wife, presented a paper and asked if she would meet their demands. She requested them to wait until she could send for her husband, who was out at the time. This they refused to do and walked out. Members of the I. W. W. then congregated in front of the restaurant and forcibly prevented customers from entering the place. In the afternoon the manager called the girls and

offered them \$8 a week with one day off each week, and requested them to join the union. The girls accepted these terms and returned to work that evening.

Coopers' Lockout.—In November, 1912, the agreement between the employers and the Coopers' Union expired and one firm refused to renew the agreement and locked out eight members of the union. They were out four months when the matter was settled favorably, for the men. The wage loss was estimated at about \$1,500 and the costs to the union were about \$200.

Waitresses' Strike.—In March, 1914, five waitresses employed by the Unique restaurant in Minneapolis struck for recognition of the union. The managers of the restaurant were fined for employing women over 58 hours a week. They evidently blamed the union for the prosecution and demanded that the girls in their employ remove their union buttons. This the girls refused to do and went on a strike. They were out two weeks when the matter was settled satisfactorily to the union. The girls were paid their two weeks' wages in full by the firm.

TABLE No. 1.—MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Twin City Joint Unions						
Glass Workers' Union No. 109	1908	22		22		
Granite Cutters' Union No. 109	1900	16		16		
Lithographers' Association No. 10	1895	60		60		
Marble Workers' Association No. 2	1901	45		20	25	Lock-out
Photo Engravers' Union No. 6	1899	114		114		
Sign Writers' Union No. 880	1902	90		90		
Pattern Makers' Union No. 880	1900	80		70	10	Trade dull
Pastors' Ornamental No. 492	1913	38		38		
Painting Cutters' Union No. 13	1908	25		25		
Tile Layers' Union No. 19	1900	64		50	14	Slack season
Upholsterers' Union, Retail, No. 117	1907	35		35		
Totals.....		589		540	49	
Minneapolis						
Asbestos Workers' Union No. 34	1913	33		33		
Blacksmiths and Helpers' Union No. 73	1902	128		128		
Brewers and Malsters' Union No. 103	1882	174		174		
Bakers' Union No. 222	1889	37		34	3	No reason
Bakers' Union No. 231 (Jewish)	1913	22		22		
Boilermakers' Union No. 11	1881	165		135	30	Slack business
Bill Posters and Billers' Union No. 10	1902	40		40		
Broom Makers' Union No. 33	1899	29		29		
Barbers' Union No. 152	1902	616		575	41	Adverse legislation
Barbers' Union No. 61	1887	235		235		
Beer Wagon Drivers' Union No. 269	1901	170		170		
Bricklayers' and Stonemasons' Union No. 2	1885	617		617		
Bookbinders' Union No. 51	1892	76		76		
Beer Bottlers' Union No. 205	1900	120		120		
Bridge and Structural Iron Workers' Union No. 19	1899	80		80		
Carmen, Brotherhood of Railway, No. 112	1901	31		31		
Carmen, Brotherhood of Railway, No. 299	1912	212		212		
Carmen, Brotherhood of Railway, No. 520	1911	110		110		
Conductors, Order of Railway, No. 117	1890	230		230		
Cigar makers' Union No. 77	1880	195	5	180	10	Slack business
Clerks' Union, Retail, No. 550	1902	186	4	180		
Carpenters' Union No. 1661	1913	134		134		
Carpenters' Union No. 7	1896	1,303		1,303		
Cabinet Makers' Union No. 1568	1905	117		117		

MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS.
TABLE No. 1—Continued

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Coopers' Union No. 62.....	1893	38		38		
Coopers' Union No. 75 (machine operators).....	1890	47		47		
Cooks' Association, Northwestern, No. 458.....	1909	250		250		
Clerks' Brotherhood of Railway, No. 260.....	1912	240	12	252		
Cement Workers' Union No. 214.....	1909	45		45		
Engineers, Steam, No. 528 (public school).....	1913	76		76		
Engineers, Steam, No. 34.....	1898	85		83	2	No reason
Engineers' Union, Hoisting, No. 86.....	1901	58		58		
Engineers' Association of Stationary, No. 8.....	1913	100		100		
Elevator Constructors' Union No. 9.....	1904	28		28		
Electrical Workers' Union No. 541 (fixture hangers).....	1907	37		30	7	Business dull
Electrical Workers' Union No. 292 (inside wiremen).....	1911	174		130	44	Scarcity of work
Electrotypes' Union No. 97.....	1873	34		31	3	Slack business
Engineers, Brotherhood of Locomotive, Div. No. 180.....	1893	92		86	6	Slack business
Engineers, Brotherhood of Locomotive, Div. No. 625.....	1903	36		36		
Engineers, Brotherhood of Locomotive, Div. No. 357.....	1887	180		180		
Engineers, Brotherhood of Locomotive, Div. No. 494.....	1892	99		99		
Freight Handlers, Brotherhood of Railway, No. 142.....	1913	75		75		
Firemen and Enginemen, Brotherhood of Locomotive, No. 82.....	1878	134		114	20	Slack business
Firemen and Enginemen, Brotherhood of Locomotive, No. 270.....	1883	203		168	35	Slack business
Firemen and Enginemen, Brotherhood of Locomotive, No. 704.....	1906	183		183		
Firemen and Enginemen, Brotherhood of Locomotive, No. 510.....	1894	103		85	18	Slack business
Garment Workers' Union No. 27.....	1907	9	80	89		
Horsehoers' Union, Journeymen, No. 27.....	1891	56		56		
Ice Wagon Drivers and Helpers' Union No. 221.....	1901	316		296	20	Slack season
Industrial Workers of the World No. 221.....	1913	110		110		
Industrial Workers of the World No. 64.....	1905	250		250		
Leathers' Union No. 189.....	1911	56		56		
Leather Workers' Union No. 18.....	1898	46		46	6	Slack business
Millwrights' Union No. 548.....	1900	44		44		
Metal Polishers', Buffers', Platers' Brass and Silver Workers' Union No. 116.....	1914	7		7		
Meat Cutters' Union No. 519.....	1913	45		45		
Machinists' Association No. 477.....	1902	365		358	7	Lack of work
Machinists' Association No. 827.....	1913	261		220	41	Lack of work
Machinists' Association No. 91.....	1901	260		240	20	Lack of work
Machinists' Association No. 959 (helpers).....	1913	52		52		
Milk Wagon Drivers' Union No. 471.....	1912	90		90		
Musicians' Union No. 73.....	1891	360	40	400		
Moulders' Union, Iron, No. 176.....	1880	300		200	100	Poor trade conditions

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Plasterers' Union No. 65.....	1895	135	.....	135	.....	.....
Parquet Floor Layers' Union No. 1644.....	1906	12	.....	12	.....	.....
Plumbers' Union No. 15.....	1888	200	.....	190	10	Slack business
Pressmen's Union No. 20.....	1898	108	.....	100	8	Slack business
Press Assistants' Union No. 6.....	1899	150	.....	145	5	Slack business
Plasterers' Tenders' Union No. 186.....	1897	135	.....	135	.....	.....
Painters' Decorators' and Paperhangers' Union No. 186.....	1897	865	.....	865	.....	.....
Stage Employers' Alliance No. 586.....	1904	42	.....	42	.....	.....
Stage Employers' Alliance, Theatrical, No. 13.....	1894	68	.....	68	.....	.....
Stage Employers' Alliance, Picture Machine Operators, No. 219.....	1911	28	.....	28	.....	.....
Sheet Metal Workers' Union No. 40.....	1893	120	.....	115	5	Slack business
Sprinkler Fitters and Helpers' Union No. 417.....	1903	40	.....	40	.....	.....
Switchmen's Union No. 30.....	1901	60	.....	60	.....	.....
Switchmen's Union No. 128.....	1894	75	.....	75	.....	.....
Switchmen's Union No. 16.....	1898	17	.....	17	.....	.....
Stereotypers' Union No. 539.....	1890	100	.....	75	25	Slack business
Trainmen, Brotherhood of Railway, No. 525.....	1897	202	.....	175	27	Slack business
Trainmen, Brotherhood of Railway, No. 625.....	1897	202	.....	175	27	Slack business
Trainmen, Brotherhood of Railway, No. 102.....	1888	300	.....	300	.....	.....
Typographical Union No. 42.....	1873	500	12	512	.....	.....
Typographical Union No. 21.....	1893	225	.....	225	.....	.....
Team Owners' Union No. 89.....	1887	220	27	247	.....	.....
Tailors' Union, Custom, No. 23.....	1890	117	.....	12	105	Lock-out
Photographers and Trimmers' Union No. 383.....	1911	50	85	135	.....	.....
Waiters and Waitresses' Alliance No. 383.....	1911	16	.....	8	8	Slack business
Wood Carvers' Association, Minneapolis Branch.....	1897	65	.....	62	3	No reason
*One Union (name withheld by request).....	1897	.....	.....	.....	.....	.....
Totals.....		13,972	265	13,603	634	
*One union requested that its report be treated confidentially.						
Beer Bottlers' Union No. 343.....	1903	258	.....	258	.....	.....
Beer Bottlers' Union No. 21.....	1884	150	.....	140	10	Slack business
Bill Posters and Billers' Union No. 45.....	1906	30	.....	30	.....	.....
Broom Makers' Union No. 18.....	1914	15	.....	15	.....	.....
Barbers' Union No. 3.....	1890	150	.....	150	.....	.....
Beet Wagon Drivers' Union No. 214.....	1909	206	.....	206	.....	.....
Bookbinders' Union No. 37.....	1892	47	.....	47	.....	.....
Blacksmiths and Helpers' Union No. 43.....	1890	200	.....	198	2	No work

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Bricklayers' Union No. 1.	1880	251		116	135	Slack season
Boot and Shoe Cutters' Union No. 281.	1901	25		25		
Boot and Shoe Lasters' Union No. 419.	1905	8		7	1	Illness
Boot and Shoe Bottomers' Union No. 295.	1902	10		10		
Brewers' and Maltsters' Union No. 97.	1892	109		109		
Bartenders' Union No. 287.	1906	108		108		
Boilermakers' Union No. 3.	1880	65		65		
Bridge and Structural Iron Workers' Union No. 94.	1906	70		70		
Cooks' Association No. 408.	1907	83		81	2	No reason
Cabinet Makers' Union No. 1868.	1913	147		147		
Clerks, Brotherhood of Railway, No. 257.	1913	17		17		
Clerks, Brotherhood of Railway, No. 319.	1914	144	6	150		
Clerks, Federation of Postal, No. 65.	1911	49		49		
Clerks' Union, Retail, No. 2.	1890	35		38		
Cigarmakers' Union No. 98.	1880	166		168	2	Dull business
Cement Workers' Union No. 173.	1908	72	4	72		
Carpenters' Union No. 87.	1885	975		875	100	Slack season
Coopers' Union No. 61.	1893	24		24		
Carmen, Brotherhood of Railway, No. 4.	1913	43		39	4	Slack business
Carmen, Brotherhood of Railway, No. 359.	1910	75		75		
Carmen, Brotherhood of Railway, No. 118.	1906	30		30		
Conductors, Order of Railway, Div. No. 40.	1881	336		332	4	Illness
Electrotypers' Union No. 45.	1902	40		40		
Electrical Workers' Union No. 23 (outside wiremen)	1902	120		120		
Electrical Workers' Union No. 110 (inside fixture men)	1912	175		150	25	Slack season
Engineers' Union, Steam, No. 36.	1900	114		110	4	No reason
Engineers' Union, Hoisting, No. 84.	1896	45		45		
Engineers, Brotherhood of Locomotive, No. 349.	1887	28		24	4	Laying off
Engineers, Brotherhood of Locomotive, No. 150.	1872	102		102		
Engineers, Brotherhood of Locomotive, No. 516.	1890	57		57		
Engineers, Brotherhood of Locomotive, No. 333.	1888	90		90		
Engineers, Brotherhood of Locomotive, No. 474.	1891	82		82		
Engineers, Brotherhood of Locomotive, No. 369.	1887	150		147	3	Pensioned
Furriers' Union No. 14035.	1885	35		35		
Fremen and Enginemen, Brotherhood of Locomotive, No. 61.	1876	65		65		
Fremen and Enginemen, Brotherhood of Locomotive, No. 358.	1887	138		138		
Fremen and Enginemen, Brotherhood of Locomotive, No. 814.	1912	97		80	17	Increased size in power
Fremen and Enginemen, Brotherhood of Locomotive, No. 450.	1896	80		60	20	Slack business
Fremen's Union, Stationary, No. 48.	1904	80		80		
Garment Workers' Union No. 171.	1891	4	42	46		

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Horsehoers' Union No. 28.....	1886	40	.....	40	.....
Industrial Workers of the World No. 307.....	1906	42	.....	42	.....
Industrial Workers of the World No. 83.....	1911	25	.....	25	.....
Ice Wagon Drivers' Union No. 756.....	1903	150	.....	150	.....
Janitor and Elevator Operators' Union No. 14601.....	1913	35	.....	35	.....
Leathers' Union No. 190.....	1898	60	.....	60	.....
Leather Workers' Union No. 19.....	1899	30	.....	30	.....
Moulders' Union, Iron, No. 232.....	1892	140	.....	120	20	Slack business
Machinists' Association No. 112.....	1890	585	.....	585	.....
Machinists' Association No. 459.....	1901	150	.....	150	.....
Milk Wagon Drivers' Union No. 476.....	1912	20	.....	20	.....
Musicians' Union No. 30.....	1894	330	50	380	.....
Meat Cutters' Union No. 114.....	1901	112	.....	112	.....
Painters' Union No. 61.....	1899	401	.....	401	.....
Press Assistants' Union No. 55.....	1902	126	.....	110	16	Slack business
Pressmen's Union, Webb, No. 33.....	1908	15	.....	15	.....
Pressmen's Union No. 29.....	1883	79	.....	79	.....
Plumbers' Union No. 34.....	1890	150	.....	130	20	Dull season
Plasterers' Union No. 20.....	1882	114	.....	114	.....
Stereotypers' Union No. 103.....	1910	29	.....	29	.....
Stone Masons' Union No. 19.....	1889	126	.....	126	.....
Switchmen's Union No. 31.....	1898	59	.....	60	.....
Steamfitters' and Helpers' Union No. 455.....	1904	110	.....	60	50	Slack business Dull season.
Suspenders Workers' Union No. 10128.....	1901	34	.....	34	.....
Steam Shovel Men's Union, No. 14.....	1914	80	.....	76	4	No reason
Stage Employes' Union, Theatrical, No. 20.....	1894	60	.....	60	.....
Stage Employes' Union, Picture Operators, No. 356.....	1914	19	.....	17	2	Minors working on jobs
Stage Cutters' Union, St. Paul Branch.....	1887	30	.....	20	10	Dull season
Sheet Metal Workers' Union No. 154 (Railway).....	1904	45	.....	45	.....
Sheet Metal Workers' Union No. 42.....	1889	73	.....	66	7	Slack business
Trammen, Brotherhood of Railway, No. 804.....	1908	143	.....	140	3	Sickness
Trammen, Brotherhood of Railway, No. 122.....	1885	313	.....	313	.....
Team Owners' Union No. 120.....	1900	125	.....	125	.....
Team Drivers' Union No. 245.....	1900	150	.....	150	.....
Tailors' Union No. 88.....	1889	106	.....	105	.....
Tailors' Union No. 388.....	1913	50	.....	37	18	No reason Work being done out of the city
Typographical Union No. 30.....	1882	345	5	350	.....
Typographical Union No. 13..... (German).....	1887	22	.....	20	2	No work
United Shoe Workers' Union No. 9.....	1908	115	.....	60	55	Left city on account of strike
Totals.....		10,004	149	9,593	560	

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Un-employed	Reasons for Unemployment
		Male	Female			
Duluth						
Bookbinders' Union No. 81	1903	9		9		
Bridge and Structural Iron Workers' Union No. 32	1902	24		18	6	No work
Bartenders' Union No. 574	1911	226		209	17	Business quiet
Boilermakers' Union No. 165	1897	41		38	3	Trade dull
Blacksmiths' and Helpers' Union No. 23	1906	10		10		
Bricklayers' Union No. 3	1889	98		60	38	No work
Boot and Shoe Repairers' Union No. 473	1911	12		12		
Barbers' Union No. 67	1896	47		47		
Billposters' and Billers' Union No. 48	1911	12		12		
Cigarmakers' Union No. 294	1886	66		66	1	Trade dull
Carpenters' Union No. 361	1892	436		436		
Conductors, Order of Railway, No. 336	1888	40		40		
Carmen, Brotherhood of Railway, No. 124	1901	50		50		
Clerks' Union, Retail, No. 3	1889	32		32		
Engineers, Brotherhood of Locomotive, No. 395	1893	75		73	2	Sickness
Engineers' Union, Hoisting, No. 517	1882	72		72		
Engineers' Association of Stationary, No. 3	1906	14		14		
Firemen and Enginemen, Brotherhood of Locomotive, No. 519	1894	198		168	30	Business depression
Horseshoers' Union No. 69	1905	16		16		
Lathers' Union No. 12	1895	33		33		
Longshoremen's Union No. 12	1892	178		100	78	Slack business
Longshoremen's Union No. 64	1905	20		20		
Moulders' Union, Iron, No. 315	1900	14		7	7	Foundry business slack
Meat Cutters' Union No. 12	1888	60		60		
Machinists' Association No. 274	1902	91		85	6	Sickness
Musicians' Union No. 18	1896	124	30	154		
Painters' Union No. 106	1887	189		156		
Pressmen's Union No. 76	1890	28		26	2	Sickness
Photo Engravers' Union No. 62	1911	10		10		
Plumbers' and Steamfitters' Union No. 11	1908	72		72		Not full time, too many helpers (employed)
Plasterers' Union No. 53	1894	36		36		
Stage Employes' Union, Theatrical, No. 33	1892	68		56	12	Theatres closed for summer
Sheet Metal Workers' Union No. 32	1896	29		25	4	No work
Switchmen's Union No. 28	1898	25		25		
Stone Cutters' Association, Duluth Branch	1888	6		6		
Stone Masons' Union No. 4	1900	68		30	38	No building being done
Typographical Union No. 136	1886	122	3	125		
Team Drivers' Union No. 411	1902	5		5		
Trainmen, Brotherhood of Railway, No. 831		85		85		

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Trainmen, Brotherhood of Railway, No. 569.....	1898	127		127		
Tailors' Union No. 97.....	1889	65		33		
Tugmen's Association, Licensed, No. 1.....	1900	112		112		
The Layers Union No. 83.....	1913	22		22		No work
Totals.....		3,034	34	2,792	276	
Albert Lea						
Bricklayers' Union No. 10.....	1903	6		6		
Engineers, Association of Stationary, No. 5.....	1912	18		18		
Musicians' Union No. 567.....	1911	29	5	34		
Switchmen's Union No. 97.....	1900	9		9		
Totals.....		62	5	67		
Anoka						
Leather Workers' Union No. 770.....	1913	14		14		
Austin						
Bricklayers', Masons' and Plasterers' Union No. 12.....	1900	19		19		
Conductors, Order of Railway, No. 215.....	1885	46		38	8	Various
Engineers, Brotherhood of Locomotive, No. 102.....	1870	96		96		
Firemen and Enginemen, Brotherhood of Locomotive, No. 126.....	1882	101		101		
Machinists' Association No. 563.....	1910	35		20	15	Railway Co. cutting expenses
Trainmen, Brotherhood of Railway, No. 283.....	1886	119		99	20	slack business
Totals.....		416		373	43	
Bemidji						
Bricklayers', Masons' and Plasterers' Union No. 24.....	1912	9		9		
Engineers, Association of Stationary, No. 1.....	1911	20		20		
Engineers, Brotherhood of Locomotive, No. 802.....	1910	19		18	1	Discharged
Trainmen, Brotherhood of Railway, No. 820.....	1909	41		41		
Totals.....		89		85	4	
Breckenridge						
Conductors, Order of Railway, No. 448.....	1903	42		42		
Engineers, Brotherhood of Locomotive, No. 356.....	1894	44		44		

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Firemen and Engineemen, Brotherhood of Locomotive, No. 433.	1893	82		53	29	Slack business
Trammen, Brotherhood of Railway, No. 334.	1898	82		82		Irregularly employed on account of decrease of business
Totals.....		250		221	29	
Brainerd						
Bartenders' Union No. 497	1909	31		31		
Bricklayers' and Stone Masons' Union No. 14	1902	19		19		
Blacksmiths' and Helpers' Union No. 51	1893	106		91	15	Slack business
Bakers' Union No. 674	1912	11		11		
Brickmakers' and Helpers' Union No. 116	1893	92		92		
Clerks' Association, Retail No. 205	1902	22	20	41	1	Sickness
Cigarmakers' Union No. 148	1910	10		10		
Carmen, Brotherhood of Railway, No. 133	1902	92		92		
Carpenters' Union No. 951	1901	35		35		
Carpenters' Union No. 517	1912	48		53		
Musicians' Union No. 57	1912	56	7	48	8	Slack business
Moulders' Union, Iron, No. 226	1884	50		48		
Mechanics' Association No. 199	1902	156		156		
Plumbers and Steamfitters Union No. 357	1902	20		19	1	Slack business
Sheet Metal Workers Union No. 241	1902	13		12	1	Ry. Co. reducing force account adverse legislation
Typographical Union No. 593	1903	8	1	9		
Totals.....		719	28	721	26	
Crookston						
Bricklayers' Masons and Plasterers' Union No. 23	1911	21		10	11	Slack business
Cigarmakers' Union No. 331	1891	63		64		
Conductors' Order of Railway, No. 510	1908	29	1	29		
Engineers, Brotherhood of Locomotive, No. 842	1913	32		32		
Firemen and Engineemen, Brotherhood of Locomotive, No. 483	1906	39		36	3	Slack business
Trammen, Brotherhood of Railway, No. 683		55		55		
Totals.....		239	1	226	14	
Crosby						
Clerks' Association, Retail No. 380	1914	15		15		
Carpenters' Union No. 353	1913	22		22		
Totals.....		37		37		

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Paper Makers' Union No. 128.....	1910	36		36		
Cloquet						
Musicians' Union No. 583.....	1912	32		32		
Detroit	1902	18		18		
Maintenance of Way Employees' Union No. 492.....		50		50		
Totals.....						
Conductors, Order of Railway, No. 572.....	1910	35		35		
Engineers, Brotherhood of Locomotive, No. 202.....	1883	46		46		
Firemen and Enginemen, Brotherhood of Locomotive, No. 710.....	1907	80		78	2	Slack business
Machinists' Association No. 142.....	1908	18		18		
Maintenance of Way Employees' Union No. 249.....	1913	45		45		
Tranmen, Brotherhood of Railway, No. 799.....	1908	75		50	25	Lack of work
Totals.....		299		272	27	
East Grand Forks						
Bartenders' Union No. 598.....	1912	54		54		
Engineers, Brotherhood of Locomotive, No. 470.....	1890	18		18		
Firemen and Enginemen, Brotherhood of Locomotive, No. 292.....	1888	20		20		
Maintenance of Way Employees' Union No. 182.....	1913	30		28	2	On account of connection with union
Totals.....		122		120	2	
Erskine						
Maintenance of Way Employees' Union No. 209.....	1905	60		60		
Farmington						
Carmen, Brotherhood of Railway, No. 526.....	1911	16		16		
Faribault						
Bricklayers' and Stonemasons' Union No. 22.....	1910	27		27		
Cigar makers' Union No. 434.....	1893	15		15		
Team Owners' Union No. 139.....	1913	100		100		
Totals.....		142		142		

TABLE No. 1.—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Glenwood	1913	18		18		
Carmen, Brotherhood of Railway, No. 209.						
Grand Rapids	1903	16		16		
Paper Makers' Union No. 129.						
Hibbing	1903	40	1	41		
Cigarmakers' Union No. 426.	1901	7	2	9		
Tailors' Union No. 315.						
Totals.....		47	3	50		
International Falls						
Bricklayers' Masons' and Plasterers' Union No. 20.	1909	22		10	12	No work
Bartenders' Union No. 310.	1914	64		64		
Carpenters' Union.	1914	14		14		
Clerks Association, Retail, No. 1281.	1914	31	12	43		
Musicians' Union No. 671.	1914	50	5	55		
Paper Makers' Union No. 189.	1910	105		105		
Painters' Union No. 1003.	1914	10		10		
Totals.....		296	17	301	12	
Jasper						
Paving Cutters Union No. 44.	1907	45		45		
Kasota						
Stone Cutters' Association, Kasota Branch.	1899	20		20		
Little Falls						
Bricklayers' and Stone Masons' Union No. 13.	1902	11		11		
Maintenance of Way Employees Union No. 243.	1914	40		40		
Paper Makers' Union No. 131.	1910	5		5		
Totals.....		56		56		
Lake Park						
Musicians' Union No. 562.	1911	30		30		

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND MEMBERS UNEMPLOYED

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Luverne	Musicians' Union No. 591.....	25		25		
	Conductors, Order of Railway, No. 99.....					
	Engineers, Brotherhood of Locomotive, No. 313.....	44		44		
	Firemen and Enginemen, Brotherhood of Locomotive, No. 579.....	65		65		
	Trainmen, Brotherhood of Railway, No. 764.....	73		43	30	Business depression
Totals.....		133		34	99	Slack business and longer trains
Mankato		315		186	129	
	Bricklayers' Union No. 11.....					
	Brewers' and Maltsters' Union No. 36.....	40		40		
	Cigarmakers' Union No. 351.....	16		16		
	Engineers, Association of Stationary, No. 6.....	12	1	12		
	Maintenance of Way Employees Union No. 103.....	21		21		
	Plumbers' Union No. 561.....	5		5		
	Stone Cutters' Association.....	19		19		
	Stone Masons' Union No. 18.....	36		6	30	Dull trade.
	Totals.....	18		18		
Melrose		167	1	137	31	
	Conductors, Order of Railway, No. 236.....					
	Engineers, Brotherhood of Locomotive, No. 413.....	42		41	1	No reason
	Firemen and Enginemen, Brotherhood of Locomotive, No. 224.....	45		45		
	Granite Cutters' Association, Melrose Branch.....	60		49	11	Depression in business
	Trainmen, Brotherhood of Railway, No. 83.....	52		52		
	Totals.....	84		84		
Moorhead		283		271	12	
	Bartenders' Union No. 365.....					
	Firemen and Enginemen, Brotherhood of Locomotive, No. 636.....	87		87		
	Totals.....	53		53		
New U'm						
	Bricklayers' and Stone Masons' Union No. 25.....	24		24		

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Owatonna						
Bricklayers' and Stonemasons' Union No. 21	1910	17		17		
Carpenters' Union No. 1909	1909	10		10		
Totals		27		27		
Proctor						
Conductors, Order of Railway, No. 405	1898	99		99		
Engineers, Brotherhood of Locomotive, No. 559	1902	111		91		20 Slack business
Firemen and Enginemen, Brotherhood of Locomotive, No. 539	1898	178		100		78 Depression in business
Machinists' Association No. 615	1901	69		69		
Trainmen, Brotherhood of Railway, No. 529	1900	176		115		61 Decrease in business
Totals		633		474		159
Red Wing						
Bricklayers' and Stone Masons' Union No. 17	1907	24		24		
Brewery Workers' Union No. 174	1902	44		36		8 Sick and in other trades
Barbers' Union No. 614	1910	13		12		1 Sickness
Cigarmakers' Union No. 400	1909	13		13		
Carpenters' Union No. 83	1905	16		16		
Stoneware Potters' Union No. 8302	1896	47		47		
Sheet Metal Workers' Union No. 379	1907	7		7		
Totals		164		155		9
Rochester						
Bricklayers' and Stone Masons' Union No. 8	1902	27		27		
Cigarmakers' Union No. 271	1893	17		17		
Carpenter's Union No. 980	1892	60		60		
Plasterers' Union No. 472	1911	11		9		2 Slack work
Totals		115		113		2
Rockville						
Quarry Workers' Union No. 172	1913	10		10		
Stillwater						
Bricklayers' and Stonemasons' Union No. 9	1902	28		28		
Carpenters' Union No. 957	1901	57		57		

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Musicians' Union No. 363.....	1907	40	6	46		
Typographical Union No. 432.....	1900	5		5		
Totals.....		130	6	136		
Shakopee						
Moulders' Union, Iron, No. 64.....	1906	33		33		
St. James						
Trainmen, Brotherhood of Railway, No. 384.....	1896	82		61	21	Slack business
Sandstone						
Paving Cutters' Union No. 15.....	1902	45		45		
Stone Cutters' Association, Sandstone branch.....	1888	18			18	Work not started
Totals.....		63		45	18	
Sauk Rapids						
Papermakers' Union No. 149.....	1911	25			25	On strike
Staples						
Carmen, Brotherhood of Railway, No. 134.....	1906	25		25		
Conductors, Order of Railway, No. 197.....	1884	40		40		
Engineers, Brotherhood of Locomotive, No. 144.....	1873	40		40		
Firemen and Engine-men, Brotherhood of Locomotive, No. 443.....	1895	80		31	49	Poor business
Maintenance of Way Employees' Union.....	1914	80		80		
Switchmen's Union No. 154.....	1900	15		15		
Trainmen, Brotherhood of Railway, No. 194.....	1891	52		40	12	Slack business
Totals.....		332		271	61	
St. Cloud						
Bricklayers' Union No. 15.....	1903	36		36		
Bartenders' Union No. 813.....	1913	26		24	2	No reason
Carpenters' Union No. 930.....	1901	100		100		
Cigar-makers' Union No. 315.....	1890	42		42		
Granite Cutters' Union, St. Cloud Branch.....	1882	90		88	2	Old age
Paving Cutters' Union No. 30.....	1905	78		78		
Painters' Union No. 568.....	1892	31		31		
Quarry Workers' Union No. 31.....	1890	25		21	4	Strike

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Typographical Union No. 630.	1903	22		22		
Teamsters' Union No. 586.	1903	49		49		
Totals.		499		491	8	
Two Harbors						
Blacksmiths' Union No. 459.	1906	18		17	1	Slack business
Boilermakers' Union No. 437.	1905	18		18		
Clerks' Association, Retail, No. 930.	1903	22	6	23		
Conductors, Order of Railway, No. 360.	1887	62		62		
Engineers, Brotherhood of Locomotive, No. 420.	1889	120		120		
Firemen and Engineemen, Brotherhood of Locomotive, No. 401.	1889	165		135	30	Slack business
Trainmen, Brotherhood of Railway, No. 339.	1889	234		184	50	Slack business
Totals.		639	6	564	81	
Thief River Falls						
Bartenders' Union No. 756.	1914	24		24		
Conductors, Order of Railway, No. 539.	1908	30		24	6	Slack business
Engineers, Brotherhood of Locomotive.	1907	30		30		
Firemen and Engineemen, Brotherhood of Locomotive, No. 103.	1907	57		49	8	Slack business
Trainmen, Brotherhood of Railway, No. 436.	1905	69		67	2	No reason
Totals.		210		194	16	
Virginia						
Bricklayers' Union No. 16.	1910	41		41		
Conductors, Order of Railway, No. 607.	1912	40		40		
Engineers, Brotherhood of Locomotive, No. 677.	1906	57		42	15	2 sick and slack business
Firemen and Engineemen, Brotherhood of Locomotive, No. 654.	1906	225		208	23	Slack business
Musicians' Union No. 428.	1912	25		27		
Musicians' Association No. 920.	1906	25		25		
Plumbers and Steamfitters' Union No. 156.	1910	17		17		
Typographical Union No. 727.	1914	102		102		
Trainmen, Brotherhood of Railway, No. 746.	1906	15		15		
Tailors' Union No. 306.	1911	15		15		
Totals.		590		550	40	

TABLE No. 1—Continued
MEMBERSHIP OF LABOR ORGANIZATIONS, STATE OF MINNESOTA—WHEN ORGANIZED AND UNEMPLOYED MEMBERS

Local Unions	When Organized	Membership 1914		Members Employed	Members Unemployed	Reasons for Unemployment
		Male	Female			
Warroad Maintenance of Way Employees' Union No. 322	1906	25		25		
Wabasha Carmen, Brotherhood of Railway, No. 15	1913	15		15		
Waseca Conductors, Order of Railway, No. 90	1893	58		56	2	Pensioned
Engineers, Brotherhood of Locomotive, No. 9	1878	178		98	10	Age limit, pensioned & disability
Firemen and Engineemen, Brotherhood of Locomotive, No. 65	1883	117		116	1	Sickness
Trainmen, Brotherhood of Railway, No. 139	1885	110		85	25	Slack business
Totals		363		325	38	
Willmar Conductors, Order of Railway, No. 563	1909	61		61		
Engineers, Brotherhood of Locomotive, No. 549	1899	40		37	3	Discharged 2 for drunkenness, 1 (for collision)
Firemen and Engineemen, Brotherhood of Locomotive, No. 95	1896	59		59		
Trainmen, Brotherhood of Railway, No. 640	1902	114		75	39	Larger engines hauling longer (trains)
Totals		274		232	42	
Winona Boilermakers' Union No. 201	1900	30		30		
Bricklayers' Union No. 2	1899	25		25		
Barbers' Union No. 38	1894	23		23		
Blacksmiths Union No. 108	1894	14		14		
Brewery Workers' Union No. 337	1900	48		48		
Carpenters' Union No. 30	1901	96		96		
Clerks, Brotherhood of Railway, No. 129	1907	13		13		
Clerks, Association, Retail, No. 52	1892	19		19		
Cigar-makers' Union No. 7	1882	23		23		
Engineers, Association of Stationary	1887	39		39		
Moulders' Union, Iron, No. 293	1898	22		22		
Machinists' Association, No. 133	1890	104		101	3	Slack business
Painters' Union No. 50	1900	73		73		No. work
Plumbers' Union No. 1	1898	16		15	1	Slack business
Sheet Metal Workers' Union No. 232	1902	18		18		
Stone Masons' Union No. 6	1902	13		13		
Steamfitters and Helpers' Union No. 617	1913	16		16		
Typographical Union No. 246	1897	66		65	1	No reason
Trainmen, Brotherhood of Railway, No. 510	1894					
Totals		707		697	10	

TABLE No. 2—SUMMARY OF MEMBERSHIP OF LABOR ORGANIZATIONS—BY
CITIES AND TOWNS

City or Town	Number of Unions	Membership			Members Employed	Members Un- employed
		Total	Male	Female		
Twin City Joint Unions...	11	589	589		540	49
Minneapolis.....	90	14,237	13,972	265	13,603	634
St. Paul.....	87	10,153	10,004	149	9,593	560
Duluth.....	43	3,068	3,034	34	2,792	276
Albert Lea.....	4	67	62	5	67	
Anoka.....	1	14	14		14	
Austin.....	6	416	416		373	43
Bemidji.....	4	89	89		88	1
Breckenridge.....	4	250	250		221	29
Brainerd.....	15	747	719	28	721	26
Crookston.....	6	240	289	1	226	14
Crosby.....	2	37	37		37	
Cloquet.....	1	36	36		36	
Detroit.....	2	50	50		50	
Dilworth.....	6	299	299		272	27
East Grand Forks.....	4	122	122		120	2
Erskine.....	1	60	60		60	
Farmington.....	1	16	16		16	
Faribault.....	3	142	142		142	
Glenwood.....	1	18	18		18	
Grand Rapids.....	1	16	16		16	
Hibbing.....	2	50	47	3	50	
International Falls.....	7	313	296	17	301	12
Jasper.....	1	45	45		45	
Kasota.....	1	20	20		20	
Little Falls.....	3	56	56		56	
Lake Park.....	1	30	30		30	
Luverne.....	1	25	25		25	
Montevideo.....	4	315	315		186	129
Mankato.....	8	168	167	1	137	31
Melrose.....	5	283	283		271	12
Moorhead.....	1	87	87		87	
Nymore.....	1	53	53		53	
New Ulm.....	1	24	24		24	
Owatonna.....	2	27	27		27	
Proctor.....	5	633	633		474	159
Red Wing.....	7	164	164		155	9
Rochester.....	4	115	115		113	2
Rockville.....	1	10	10		10	
Stillwater.....	4	136	130	6	136	
Shakopee.....	1	33	33		33	
St. James.....	1	82	82		61	21
Sandstone.....	2	63	63		45	18
Sauk Rapids.....	1	25	25			25
Staples.....	7	332	332		271	61
St. Cloud.....	10	499	499		491	8
Two Harbors.....	7	645	639	6	564	81
Thief River Falls.....	5	210	210		194	16
Virginia.....	10	590	590		550	40
Warroad.....	1	25	25		25	
Wabasha.....	1	15	15		15	
Waseca.....	4	363	363		325	38
Willmar.....	4	274	274		232	42
Winona.....	19	707	707		697	10
Totals.....	425	37,083	36,568	515	34,708	2,375

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
			Male Dollars	Female Dollars	
	Daily	Weekly			
Asbestos Workers, International Association of— Minneapolis Union No. 34.....	8	48	3.60		20 percent increase. One hour per day decrease
Blacksmiths and Helpers, International Brotherhood of— Minneapolis Union No. 73.....	9	54	\$2.16-4.05		One cent per hour increase.
St. Paul Union No. 43.....	9	50	\$2.07-4.14		One cent per hour increase.
Duluth Union No. 23.....	9	53	\$2.70-4.14		Two cents per hour increase for some.
Brainerd Union No. 51.....	9	54	\$2.16-4.77		One cent per hour increase, blacksmiths, one-half cent, helpers.
Two Harbors Union No. 459.....	9	54	\$2.16-3.96		Increase 1½ cents per hour.
Winona Union No. 108.....	9	54	3.69		
*Minimum and maximum					
Brewery Workers, International Union of United— Minneapolis Union No. 103 (brewers and maltsters) ..	8	48	3.42		Increase \$1.00 per week.
Minneapolis Union No. 205 (bottlers).....	8	48	2.91		Increase \$1.50 per week.
Minneapolis Union No. 269 (drivers).....	10	60	2.66½-3.33½		Increase \$1.50 per week.
St. Paul Union No. 97 (brewers and maltsters) ..	8	48	3.33½		
St. Paul Union No. 343 (bottlers).....	8	48	2.75		
St. Paul Union No. 214 (drivers).....	10	60	2.35-3.21		Increase of 50 cents per week.
Mankato Union No. 36.....	10	60	2.00-2.75		Increase of \$2.66½ per week by getting double pay for Sunday work.
Red Wing Union No. 174.....	9	58	2.66½		Increase of \$1.50 per week.
Winona Union No. 337.....	*10-9	60-54	2.41½-3.08½		
*Outside men 10 hours; inside men 9 hours.					
Bakery and Confectionery Workers— Minneapolis Union No. 222.....	9½	57	2.70		Increase \$2.00 per week.
Minneapolis Union No. 231 (Jewish).....	10	60	*2.83-3.50		Increase \$1.00 per week. One hour per day decrease for day crew.
St. Paul Union No. 21.....	9	54	3.00		
*Helpers.					
Boilermakers, International Brotherhood of— Minneapolis Union No. 11.....	9	54	4.00		One cent per hour increase.
St. Paul Union No. 3.....	9	54	4.00		One cent per hour increase.
Duluth Union No. 165.....	9	54	4.00		
Brainerd Union No. 116.....	9	54	*2.04-3.91		One cent per hour increase.
Two Harbors Union No. 437.....	8	48	3.56		decrease.
Winona Union No. 201.....	9	54	*1.98-3.69		One cent per hour increase.
*Helpers.					

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Bill Posters and Billers International Alliance— Minneapolis Union No. 10..... St. Paul Union No. 45..... Duluth Union No. 48..... Broom and Whisk Makers International Union— Minneapolis Union No. 33..... St. Paul Union No. 18..... Barbers Union, Journeyman— Minneapolis Union No. 61..... St. Paul Union No. 31..... Duluth Union No. 67..... Brainerd Union No. 674..... Red Wing Union No. 614..... Winona Union No. 38..... Bricklayers, Masons, and Plasterers International Union— St. Paul Union No. 2..... St. Paul Union No. 1 (bricklayers)..... St. Paul Union No. 19 (stone masons)..... Duluth Union No. 3 (bricklayers)..... Duluth Union No. 4 (stone masons)..... Albert Lea Union No. 10..... Austin Union No. 12..... Bemidji Union No. 24..... Brainerd Union No. 14..... Crookston Union No. 23..... Faribault Union No. 22..... International Falls Union No. 20..... Little Falls Union No. 13..... Mankato Union No. 11 (bricklayers)..... Mankato Union No. 18 (stone masons)..... Red Wing Union No. 17..... Owatonna Union No. 21..... New Ulm Union No. 25..... Rochester Union No. 8..... Stillwater Union No. 9..... Virginia Union No. 16..... St. Cloud Union No. 15..... *Stone masons.	10 8 8 9 9 11 10½ 10 10 11 11 8 8 8 8 9 				

*Stone masons.

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Bricklayers, Masons and Plasterers Internat'l Union—Cont.					
Winona Union No. 2 (bricklayers).....	8	48	5.20	.....
Winona Union No. 6 (stone masons).....	8	48	4.00	.....
Bookbinders, International Brotherhood of—					
Minneapolis Union No. 51.....	9	49	3.24	.....
St. Paul Union No. 37.....	8	48	3.00	.....
Duluth Union No. 81.....	8	48	3.00	.....
Bridge and Structural Iron Workers—					
Minneapolis Union No. 19.....	8	48	5.00	.....	Increase of 10 per cent.
St. Paul Union No. 94.....	8	48	5.00	.....	12½ cents per hour increase.
Duluth Union No. 32.....	8	48	5.00	.....	12½ cents per hour increase.
Boot and Shoe Workers—					Increase of 50 cents per day.
St. Paul Union No. 281 (cutters).....	10	59	3.00	.....	Increase of \$1.50 per week.
St. Paul Union No. 419 (lasters).....	10	59	3.00	.....
St. Paul Union No. 295 (bottomers).....	10	59	2.50	.....
Duluth Union No. 473 (repairers).....	10	60	2.50	.....
Carmen, Brotherhood of Railway—					
Minneapolis Union No. 112.....	10	59	2.25	.....	Decrease of one hour per week.
Minneapolis Union No. 520.....	10	59	2.59	.....	Increase of ½ cent per hour.
Minneapolis Union No. 299.....	10	60	*1.65-3.50	.....	Increase of 1 cent per hour.
St. Paul Union No. 118.....	8	52	*2.60-3.60	.....	Increase of 1 cent per hour.
St. Paul Union No. 359.....	10	59	*1.80-3.30	.....	Increase of 5 per cent.
St. Paul Union No. 4.....	10	70	2.30	.....	Increase of time and one-half for Sundays and holidays.
Duluth Union No. 124.....	10	59	*2.15-3.30	.....	Increase of ½ cent per hour.
Brainerd Union No. 133.....	10	59	*2.15-3.15	.....	Increase of ½ cent per hour.
Farmington Union No. 526.....	10	60	2.25	.....	Increase of 3 cents per hour.
Glenwood Union No. 209.....	10	60	2.25	.....
Staples Union No. 134.....	10	59	2.30	.....
Wabasha Union No. 15.....	9	54	*2.05-2.45	.....	Increase of ½ cent per hour.
*Minimum and maximum.					Decrease of one hour per day.
Conductors, Order of Railway—					
Minneapolis Division No. 117.....	10	70	4.00	.....
St. Paul Division No. 40.....	10	70	4.00	.....
Duluth Division No. 336.....	10	70	4.18	.....
Austin Division No. 215.....	10	70	4.00	.....
Breckenridge Division No. 448.....	10	70	5.00	.....
Crookston Division No. 510.....	10	70	*4.25-5.00	.....

*All trainmen are paid at the rate of 10 hour day or 100 miles. All wages quoted represent average earnings, low figures freight and high figures passenger service.

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Conductors, Order of Railway—Continued—					
Dwight Division No. 372.....	10	70	4.18-5.35	.....
Montevideo Division No. 99.....	10	70	4.24	4.00	
Metrose Division No. 236.....	10	70	3.50	4.82	
Proctor Division No. 405.....	10	70	4.18-5.17	.....
Staples Division No. 197.....	10	70	4.18-4.83	.....
Two Harbors Division No. 300.....	10	70	4.18-4.83	.....
Thief River Falls Division No. 539.....	10	70	4.25-4.74	.....
Virginia Division No. 607.....	10	70	4.18-4.55	.....
Waseca Division No. 90.....	10	70	4.00	.....
Wilmar Division No. 563.....	10	70	.....	.....
Cigarmakers International Union—					
Minneapolis Union No. 77.....	8	48	*2.25	2.95	
St. Paul Union No. 38.....	8	48	2.00-3.00	1.75-2.50	
Duluth Union No. 294.....	8	48	2.50	2.50	
Brainerd Union No. 448.....	8	48	3.00	.....
Crookston Union No. 331.....	8	48	2.75	.....
Farbault Union No. 434.....	8	48	3.00	.....
Hibbing Union No. 4251.....	8	48	3.00	3.00	
Mankato Union No. 351.....	8	48	3.00	2.00	
Red Wing Union No. 400.....	8	48	3.00	.....
Rochester Union No. 271.....	8	48	3.00	.....
St. Cloud Union No. 315.....	8	48	3.00	.....
Winona Union No. 70.....	8	48	2.50	.....
*All cigarmakers work by the piece. Where two figures are given it represents the range, where one figure is given it represents the estimated average earnings.					
Clerks International Association, Retail—					
Minneapolis Union No. 550.....	9	57	*2.50	1.25	
St. Paul Union No. 2.....	9	57	3.00	1.50	
Duluth Union No. 3.....	10	60	3.00	.....
Brainerd Union No. 205.....	9-10	54-60	2.25	1.00	
Crosby Union No. 380.....	15	90	3.00	.....
International Falls Union No. 1281.....	14	86	3.00	2.00	
Two Harbors Union No. 930.....	10	80	2.75	1.00	
Winona Union No. 82.....	9	57	2.25	.....
*Clerks' Union has no wage schedule; average estimated earnings are given.					
Carpenters and Joiners, United Brotherhood of—					
Minneapolis Union No. 1061 (carpenters).....	8	48	4.00	.....
Minneapolis Union No. 1061 (carpenters).....	8	48	4.00	.....

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Carpenters and Joiners, United Brotherhood of—Cont.—					
Minneapolis Union No. 548 (millwrights).....	8	48	4.80	.....	Increase of 10 cents per hour.
Minneapolis Union No. 1644 (parquet floor layers).....	8	48	4.40	.....	Increase of 5 cents per hour.
Minneapolis Union No. 1508 (cabinet makers).....	9-10	54-60	3.00	.....
St. Paul Union No. 87 (carpenters).....	8	48	4.00	.....
St. Paul Union No. 1868 (cabinet makers).....	9	54	2.70	.....
Duluth Union No. 361.....	8	48	3.60	.....
Brainerd Union No. 951.....	10	59	4.00	.....
Crosby Union No. 353.....	10	60	4.00	.....
International Falls Union.....	10	58	3.50	.....
Owatonna Union No. 1909.....	10	60	3.60	.....	Increase of 5 cents per hour.
Red Wing Union No. 83.....	9	54	3.60	.....	Increase of 2½ cents per hour.
Rochester Union No. 980.....	9	54	4.05	.....	Increase of 5 cents per hour.
Saultwater Union No. 957.....	9	54	3.60	.....
St. Cloud Union No. 930.....	9	54	4.05	.....	Increase of 5 cents per hour.
Winona Union No. 387.....	8	48	4.00	.....
Coopers International Union—					
Minneapolis Union No. 62.....	8	48	3.28	.....	Increase of 3¼ cents per hour.
Minneapolis Union No. 75 (machine operators).....	8	48	*3.75	.....
St. Paul Union No. 61.....	8	48	*2.75	.....	Increase of 8 per cent.
*Piece work, average earnings reported.					
Clerks, Brotherhood of Railway—					
Minneapolis Union No. 260.....	9	54	2.75	2.00	Average of \$3.50 per month increase.
St. Paul Union No. 257.....	9	54	3.00	.....	From \$3.00 to \$5.00 per month increase.
St. Paul Union No. 319.....	9	50	2.75	2.00	Decrease of 2 hours per week.
Winona Union No. 129.....	10	60	*	.....
*Not reported.					
Clerks, Post Office, National Federation of—					
St. Paul Branch No. 65.....	8	48	*3.50	.....
*No union scale, average wage given.					
Cement Workers, Brotherhood of—					
Minneapolis Union No. 214.....	8	48	4.00	.....	Decrease one hour per day.
St. Paul Union No. 173.....	8	48	4.00	.....
Engineers, International Union of Steam—					
Minneapolis Union No. 528 (public school).....	8-14	48-84	2.16½	.....
Minneapolis Union No. 34 (stationary).....	10	60	3.00	.....	10 per cent increase in breweries, affecting 30 men.
Minneapolis Union No. 86 (holisting).....	9	54	4.50	.....
St. Paul Union No. 36 (stationary).....	8-12	48-96	4.00	.....
St. Paul Union No. 84 (holisting).....	9	54	5.55½	.....	Increase 10½ cents per hr. Decrease 1 hr. per day

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Engineers, International Union of Steam—Continued					
Duluth Union No. 517 (hoisting)	8-10	48-60	5.00		Increase of 6½ cents per hour.
Engineers, National Association of Stationary—					
Minneapolis Branch No. 8	10	70	*		
Duluth Branch No. 3	10	70			
Albert Lea Branch No. 5	12	84	3.00		
Bemidji Branch No. 1	10	90	3.00		
Manakato Branch No. 6	12	72	3.00		
Winona Branch No. 4	8-12	56-72	3.00		
*Not reported. This Association is purely an educational or ganization.			having no	schedule as	to hours and wages.
Elevator Constructors, International Union of—	8	48	2.40-4.00		
Minneapolis Union No. 9	8	44	4.00		Increase of 50 cents per day. Decrease of ¼ hours per week.
Electrical Workers, International Brotherhood of—					
St. Paul Union No. 110 (inside wiremen)	8	54	4.00		
St. Paul Union No. 23 (outside wiremen)	9	48	4.00		
Minneapolis Union No. 541 (fixture assemblers and hangers)	8	44	4.00		
Engineers, Brotherhood of Locomotive—					
Minneapolis Division No. 494	10	70	*		
Minneapolis Division No. 537	10	70	4.25-5.60		
Minneapolis Division No. 625	10	70	3.25-6.00		
Minneapolis Division No. 180	10	70	3.40-5.40		
St. Paul Division No. 369	10	70	4.40-5.90		
St. Paul Division No. 474	10	70	4.25-7.50		
St. Paul Division No. 333	10	70	5.00		
St. Paul Division No. 516	10	70	4.00-5.25		
St. Paul Division No. 150	10	70	4.25-4.40		
St. Paul Division No. 349	10	70	3.70-5.65		
Duluth Division No. 395	10	70	3.75-6.45		
Austin Division No. 102	10	70	4.30-5.40		
Nymore Division No. 802	10	70	4.30-5.45		
Breckenridge Division No. 356	10	70	4.65-5.30		
Crookston Division No. 842	10	70	4.00-5.30		
Dilworth Division No. 202	10	70	4.25-5.65		
East Grand Forks Division No. 470	10	70	4.40-4.65		

*No wage reported. Trainmen are paid by 10 hour day or 100 miles. Low figure represents average earnings on passenger engines, high figure average on freight, single figure represents average of both. Rates are graduated according to size of engines, figures represent max. and min.

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Engineers, Brotherhood of Locomotive—Continued—					
Montevideo Division No. 313.....	10	70	*	Increase of about 6 per cent.
Melrose Division No. 413.....	10	70	4.25-5.70	.....
Proctor Division No. 559.....	10	70	5.00	.....
Staples Division No. 114.....	10	70	5.00	.....
Two Harbors Division No. 420.....	10	70	4.25-5.55	.....
Thief River Falls Division No. 768.....	10	70	4.30-5.25	Average earnings on passenger engines, high figure size of engines, figures represent max. and min.
Virginia Division No. 677.....	10	70	4.40-5.30	.....
Wasasca Division No. 9.....	10	70	4.00-5.50	.....
Willmar Division No. 549.....	10	70	4.00-5.55	.....
*No wage reported. Trainmen are paid by 10 hour day or 100 miles. Low figure represents average of both. Rates are graduated according to size of engines, figures represent max. and min.					
Electrotypers and Stereotypers Union, International—					
Minneapolis Union No. 97 (electrotypers).....	8	48	*2.75-4.00	Increase; moulders \$3.00 per week, finishers \$1.50 per week, branchmen \$1.00 per week. Decrease 1 hour per day. Increase of 25 cents per day. Increase of 12½ cents per day. Increase. Amount not reported.
Minneapolis Union No. 16 (stereotypers).....	8	48	3.50	.....
St. Paul Union No. 103 (stereotypers).....	8	48	3.37½	.....
St. Paul Union No. 45 (electrotypers).....	8	48	*2.75-4.00	.....
*Shows lowest and highest paid wage according to branch of the trade.					
Freight Handlers, Brotherhood of—					
Minneapolis Union No. 142.....	10	60	2.25	Increase of \$10.00 per month in breweries.
Furriers Union—					
St. Paul Union.....	9	50	3.00	.....
Firemen, International Brotherhood of Stationary—					
St. Paul Union No. 48.....	8-12	50-84	3.00	.....
Firemen and Enginemen, Brotherhood of Locomotive—					
Minneapolis Lodge No. 510.....	10	70	2.50-3.75	Increase of \$10.00 per month in breweries.
Minneapolis Lodge No. 704.....	10	70	*	.....
Minneapolis Lodge No. 270.....	10	70	2.50-3.25	.....
Minneapolis Lodge No. 82.....	10	70	*	.....
St. Paul Lodge No. 450.....	10	70	2.65-3.05	.....
St. Paul Lodge No. 814.....	10	70	2.40-5.65	.....
St. Paul Lodge No. 358.....	10	70	2.50-3.75	.....
St. Paul Lodge No. 61.....	10	70	2.50-4.00	.....
Duluth Lodge No. 519.....	10	70	2.50-3.75	.....
Austin Lodge No. 126.....	10	70	2.50-5.55	.....
Breckenridge Lodge No. 433.....	10	70	2.55-4.00	.....

*Wages not reported. Figures represent maximum and minimum rate per 100 miles.

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Firemen and Enginemen, Bro. of Locomotive—Continued—					
Crookston Lodge No. 483.....	10	70	2.50-4.00	.....
Dilworth Lodge No. 710.....	10	70	2.55-3.75	.....
East Grand Forks Lodge No. 292.....	10	70	2.50-3.35	.....
Montevideo Lodge No. 579.....	10	70	2.80-3.75	.....
Melrose Lodge No. 224.....	10	70	2.50-3.80	.....
Nymore Lodge No. 636.....	10	70	2.45-3.35	.....
Proctor Lodge No. 539.....	10	70	2.50-4.75	.....
Staples Lodge No. 443.....	10	70	2.50-3.75	.....
Two Harbors Lodge No. 401.....	10	70	3.00-6.00	.....
Thief River Falls Lodge No. 103.....	10	70	2.40-3.75	.....
Virginia Lodge No. 654.....	10	70	2.50-3.55	.....
Waseca Lodge No. 65.....	10	70	2.35-3.80	.....
Willmar Lodge No. 95.....	10	70	2.25-4.00	.....
Glass Workers Union, American Flat—					
Twin City Union, No. 109.....	9.	50	3.00	.....
Granite Cutters International Association—					
Twin City Branch.....	8	44	3.80	.....
Melrose Branch.....	8	44	3.60-4.50	.....
St. Cloud Branch.....	8	44	3.50	.....
Garment Workers of America, United—					
Minneapolis Union No. 27.....	8	48	*3.25	*1.50	Increase 40 cts. per day. Decrease 4 hrs. per wk.
St. Paul Union No. 171.....	8	48	*3.00	*1.50	Increase 20 cts. per day. Decrease 4 hrs. per wk.
*All piece work. Estimated average wages.					Increase 20 cts. per day. Decrease 4 hrs. per wk.
Hotel and Restaurant Employees' International Alliance and Bartenders' League—					Decrease 6 hours per week.
Minneapolis Union No. 152 (bartenders).....	9	59	3.00	.....	Increase of \$1.00 per week for girls. Decrease of 12 hours per week for girls.
Minneapolis Union No. 593 (waiters and waitresses).....	9-10	58-70	1.75	1.35	Secured one day off in seven in better classes of hne
Minneapolis Union No. 458 (cooks).....	10-18	60-72	2.25	.....	Decrease of 10 hours per week.
St. Paul Union No. 287 (bartenders).....	9	54	3.50	.....	Increase of 25 per cent. Decrease of 3 hrs. per day
St. Paul Union No. 408 (cooks).....	12-14	82-94	2.00-6.50	.....
Duluth Union No. 574 (bartenders).....	9	54	3.75	.....
Brainerd Union No. 497 (bartenders).....	9	54	2.50	.....
East Grand Forks Union No. 598 (bartenders).....	9	54	3.25	.....
International Falls Union No. 310 (bartenders).....	12	72	4.16	.....
Moorhead Union No. 365 (bartenders).....	10	60	2.50-5.00	.....
St. Cloud Union No. 813 (bartenders).....	10	60	2.50	.....

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Hotel and Restaurant Employees' International Alliance and Bartenders' League—Continued—					
Thief River Falls Union No. 756 (bartenders)	9	54	2.50		
Horse Shoers Union, International Journeymen—					
Minneapolis Union No. 27	9	54	3.50-4.00		
St. Paul Union No. 28	9	53	3.50-4.00		
Duluth Union No. 69	9	53	3.50-4.00		
Industrial Workers of the World—					
Minneapolis Union No. 221 (building workers)	*	*	*	*	
Minneapolis Union No. 64 (miscellaneous trades)	*	*	*	*	
St. Paul Union No. 307 (miscellaneous trades)	*	*	*	*	
St. Paul Union No. 83	*	*	*	*	
* No reports on hours and wages.					
Janitor and Elevator Operators Union, Affiliated with the A. F. of L.—					
St. Paul Union No. 14601	12	72	2.50		
Lithographers International Protective and Beneficial Association—					
Twin City Branch No. 10	8	48	4.00		
Lathers Union, Wood, Wire and Metal—					
Minneapolis Union No. 189	8	48	4.00		
St. Paul Union No. 190	8	48	3.65		
Duluth Union No. 12	8	48	4.50		
Leather Workers on Horse Goods, United Brotherhood of—					
Minneapolis Union No. 18	9	54	2.75		
St. Paul Union No. 19	10	59	2.50		
Anoka Union No. 170	10	55	3.10		
Longshoremen's Association, International—					
Duluth Union No. 12	10	60	5.00		
Duluth Union No. 64 (freight handlers)	10	60	3.00		
Metal Polishers, Buffers, Platers, Brass and Silver Workers Union of North America—					
Minneapolis Union No. 116	10	60	3.00		
Meat Cutters and Butcher Workmen of America, Amal.—					
Minneapolis Union No. 519	11	67	2.75		
St. Paul Union No. 114	10½	65	2.50-3.00		
Duluth Union No. 12	11	66	3.00		

Increase of 50 cents per day.

Increase of 6½ cents per hour.

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Machinists, International Association of— Minneapolis Union No. 91.....	9	54	3.75		Increase of 10 cents per hour in some cases. De- crease of 1 hour per day.
Minneapolis Union No. 827.....	9	54	3.78		Increase of 2½ cents per hour.
Minneapolis Union No. 477.....	9	54	3.87		Increase of 1 cent per hour.
Minneapolis Union No. 959 (helpers).....	9	54	1.89		Increase of 1 cent per hour.
St. Paul Union No. 459.....	9	54	3.75		Increase in some cases of 7½ cents per hour. De- crease of 1 hour per day.
St. Paul Union No. 112.....	9	54	3.87		Increase of 1 cent per hour.
Duluth Union No. 274.....	9-10	54-60	3.00-4.30		Increase of 1½ cents per hour.
Austin Union No. 563.....	9	54	3.69		Increase of 1 cent per hour.
Brainerd Union No. 197.....	9	54	3.87		Increase of 1 cent per hour.
Duluth Union No. 142.....	9	54	3.87		Increase of 1 cent per hour.
Proctor Union No. 815.....	9	54	3.87		Increase of 1 cent per hour.
Virginia Union No. 220.....	9	54	2.70-3.87		Increase of 1 cent per hour.
Winona Union No. 133.....	9-10	54-60	2.70-3.69		Increase of 1 cent per hour.
Maintenance of Way Employees, International Bro. of— Detroit Union No. 492.....	10	60	1.50		
Duluth Union No. 249.....	10	60	1.50		
East Grand Forks Union No. 182.....	10	60	1.50		
Erskine Union No. 269.....	10	60	1.50		
Little Falls Union No. 243.....	10	60	1.50		
Mankato Union No. 103.....	10	60	1.50		
Staples Union No. 100.....	10	60	1.50		
Warroad Union No. 322.....	10	60	*2.25		
*This is the only union that has a union agreement.					
Musicians, American Federation of— Minneapolis Union No. 73.....	6	42	*5.00	5.00	
St. Paul Union No. 30.....	6	42	5.00	5.00	
Duluth Union No. 18.....	6	42	4.00	4.00	
Albert Lea Union No. 567.....					
Brainerd Union No. 517.....					
Detroit Union No. 583.....					
International Falls Union No. 671.....					
Luverne Union No. 591.....					
Lake Park Union No. 562.....					
					Increase for band concerts 50 cents per hour.

*Average earnings of regular musicians. Unions have regular scale of prices for dances, picnics, parades and theatres, ranging from \$3.00 to \$6.00. No regular hours or wages can be given in most cases as members follow other occupations and follow music as a side line.

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Musicians, American Federation of—Continued— Stillwater Union No. 363.....	3	24	2.50	2.50	
Virginia Union No. 428.....	3	24	3.50	3.50	
Moulders Union, International— Minneapolis Union No. 176.....	9	54	3.50		Increase of 35 cents per day.
St. Paul Union No. 332.....	9	54	3.50-4.70		
Duluth Union No. 315.....	9-10	54-60	3.15		
Brainerd Union No. 226.....	9	54	3.60		
Shakopee Union No. 64.....	9	54	4.40		
Winona Union No. 264.....	9	54	3.25		Increase of 5 per cent. Increase of 25 cents per day. Decrease of 1 hour per day.
Marble Workers, International Association of— Twin City Union No. 2.....	8	48	5.00		
Plasterers' International Union, Operative— Minneapolis Union No. 65.....	8	44	5.60		
St. Paul Union No. 20.....	8	44	5.00		
Twin City Union No. 492 (ornamental)	8	44	3.00-5.00		Decrease 4 hours per week. Increase of 7½ cents per hour.
Duluth Union No. 53.....	8	44	5.60		
Rochester Union No. 472.....	9	54	5.40		
Plumbers, Gasfitters, Steam Fitters and Steam Fitters' Helpers, United Association of— Minneapolis Union No. 15 (plumbers).....	8	44	5.00		Increase of 50 cents per day. Decrease of 4 hours per week. Decrease of 4 hours per week.
Minneapolis Union No. 539 (steam fitters).....	8	44	5.00		Increase of 50 cents per day. Increase of 50 cents per day.
Minneapolis Union No. 417 (sprinkler fitters)	8	48	2.50-4.50		Increase of 50 cents per day.
St. Paul Union No. 34 (plumbers)	8	44	5.00		Increase of 25 per cent.
St. Paul Union No. 455 (steam fitters)	8	48	5.00		Increase of 1 cent per hour.
Duluth Union No. 11.....	8	44	5.00		
Brainerd Union No. 357.....	9	54	3.64½		
Mankato Union No. 561.....	9	54	3.00-4.50		
Winona Union No. 156.....	10	60	6.25		
Winona Union No. 617 (steam fitters)	8	48	3.50		Increase of 2½ cents per hour.
Winona Union No. 617 (steam fitters)	9	54	1.71-3.28½		
Pressmen and Press Assistants' Union, Internat'l Printing— Minneapolis Union No. 20 (pressmen)	9	49	2.75-5.50		Increase of \$1.25 per week.
Minneapolis Union No. 6 (press assistants)	8	48	2.40		Increase of 15 per cent.
St. Paul Union No. 29 (pressmen)	9	49	3.50		Increase of \$1.50 per week.
St. Paul Union No. 55 (press assistants)	8	48	2.25		Increase of 25 cents per day.

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Pressmen and Press Assistants' Union, Int. Printg.—Cont.— St. Paul Union No. 33 (Webb pressmen).....	8	48	3.85	.....	Increase of 20 per cent.
Duluth Union No. 76.....	8	48	3.35	.....
Plaster Tenders Union— Minneapolis Union.....	8	48	3.40	.....	Increase of 15 cents per day.
Painters, Decorators and Paperhangers, Brotherhood of— Twin City Union No. 880 (sign writers).....	8	48	4.50	.....	Increase of 50 cents per day.
Minneapolis Union No. 186.....	8	44	4.00	.....	Increase of 5 cents per hour.
Minneapolis Union No. 586 (paperhangers).....	8	44	5.00	.....	Increase of 10 per cent. Decrease of 4 hours per week.
St. Paul Union No. 61.....	8	44	4.00	.....	Increase of 5 cents per hour.
Duluth Union No. 106.....	8	44	3.80	.....	Increase of 3½ cents per hour. Decrease of ¼ hour per week.
International Falls Union No. 1003.....	10	60	3.50	.....
St. Cloud Union No. 568.....	8	48	3.60	.....	Increase of 5 cents per hour.
Winona Union No. 540.....	8	48	3.25-3.50	.....	Increase of 25 cents per day for paperhangers.
Photo Engravers Union, International— Twin City Union No. 6.....	8	48	4.50	.....
Duluth Union No. 62.....	8	48	4.50	.....
Pattern Makers League of North America— Twin City Union.....	9-10	50-54	4.00-4.50	.....	Increase of 3 cents per hour.
Paper Makers, International Brotherhood of— Cloquet Union No. 128.....	8	48	2.75	.....	Decrease from 12 to 8 hours per day.
Grand Rapids Union No. 129.....	8	48	2.65	.....	Decrease from 12 to 8 hours per day.
International Falls Union No. 159.....	8	48	3.50	.....	Increase of 6 per cent.
Little Falls Union No. 131.....	12	72	1.75-4.00	.....
Sauk Rapids Union No. 149.....	11-13	72	1.50-4.00	.....
Paving Cutters Union, National— Twin City Branch No. 90.....	8	44	4.50	.....	Increase of 50 cents per day. Decrease of 4 hours per week.
Jasper Branch No. 44.....	8	48	4.00	.....
Sandstone Branch No.	8	44	4.00	.....
St. Cloud Branch No. 33.....	8	48	4.00	.....	Increase of 20 per cent.
Quarrymen's International Union— Rockville Branch No. 172.....	8	47	2.40-3.60	.....
St. Cloud Branch No. 31.....	8	48	2.50	.....	Increase of 25 cents per day.
Stage Employes, International Alliance of Theatrical— Minneapolis Union No. 13 (stage employes).....	4-8	28-56	2.50-6.00	.....

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Stage Employees, Internat'l Alliance of Theatrical—Cont.—					
Male Union No. 219 (motion picture machine operators)	9	63	3.30	.....	Increase of 25 per cent.
St. Paul Union No. 20 (stage employees)	5	35	3.00	.....
St. Paul Union No. 356 (motion picture mach. operators)	8½	60	3.25	.....
Duluth Union No. 32	8	56	3.65	.....
Sheet Metal Workers' Alliance, Amalgamated—					
Minneapolis Union No. 40	8	48	4.00	.....	Increase of 1 cent per hour. Increase of 2½ cents per hour. Increase of 5 cents per hour.
St. Paul Union No. 154 (railway)	9	50	3.50	.....
St. Paul Union No. 42	8	48	3.40	.....
Duluth Union No. 32	8	48	4.00	.....	Increase of 5 cents per hour.
Brainerd Union No. 241	9	53	3.55	.....
Red Wing Union No. 379	9	54	3.00	.....
Winona Union No. 232	8	48	3.20	.....
Switchmen's Union of North America—					
Minneapolis Lodge No. 7	10	70	3.50-3.80	.....	Increase of 6 per cent. Increase of 30 cents per day. Increase of 74 cents per day.
Minneapolis Lodge No. 128	10	60-70	3.50-4.00	.....
Minneapolis Lodge No. 30	10	70	3.50-4.00	.....
St. Paul Lodge No. 31	10	70	3.50-4.00	.....	Increase of 5 per cent. Increase of 10 per cent for brakemen.
Duluth Lodge No. 28	10	60	3.50	.....
Albert Lea Lodge No. 97	11-12	80	4.00	.....
Staples Lodge No. 154	10	70	4.00	.....
Shoe Workers, United of America—					
St. Paul Union No. 9	10	59	1.75	.....	Increase of 5 per cent. Increase of 10 per cent for brakemen.
Steam Shovel Men, Associated Union of—					
Twin City Union No. 14	10	60	6.00	.....
Suspenders Workers Union—					
St. Paul Union No. 10128	9	49	.....	1.50	
Stone Cutters' Association of North America, Journeymen—					
St. Paul Branch	8	44	4.80	.....	Increase of 6 per cent. Increase of 30 cents per day. Increase of 74 cents per day.
Duluth Branch	8	48	4.80	.....
Kasota Branch	8	48	4.24	.....
Manikato Branch	8	48	3.40	.....	Increase of 5 per cent. Increase of 10 per cent for brakemen.
Sandstone Branch	8	44	4.56½	.....
Stoneware Potters' Union—					
Red Wing Union No. 8302	8	48	3.00	.....	Increase of 5 per cent. Increase of 10 per cent for brakemen.
Trainmen, Brotherhood of Railway—					
Minneapolis Lodge No. 102	10	70	2.75	.....
Minneapolis Lodge No. 625	10	70	3.00	.....	Increase of 10 per cent for brakemen.
Minneapolis Lodge No. 525	10	70	2.50-5.00	.....

Increase of 25 per cent.
Increase of 1 cent per hour.
Increase of 2½ cents per hour.
Increase of 5 cents per hour.
Increase of 5 cents per hour.
Increase of 6 per cent.
Increase of 30 cents per day.
Increase of 74 cents per day.
Increase of 5 per cent.
Increase of 10 per cent for brakenen.

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
St. Paul Lodge No. 122.....	10	70	3.00-3.75		
St. Paul Lodge No. 804.....	10	70	3.50-3.80		
Duluth Lodge No. 569.....	10	70	2.90-4.25		
Duluth Lodge No. 831.....	10	70	3.50-4.00		
Austin Lodge No. 283.....	10	70	2.78-3.14		
Bemidji Lodge No. 820.....	10	70	3.25-4.80		
Breckenridge Lodge No. 334.....	10	70	3.00-5.00		
Crookston Lodge No. 683.....	10	70	3.00-4.50		
Dilworth Lodge No. 799.....	10	70	2.78-3.48		
Montevideo Lodge No. 764.....	10	70	2.78-3.14		
Melrose Lodge No. 83.....	10	70	2.82-3.24		
Proctor Lodge No. 529.....	10	70	2.80-3.90		
St. James Lodge No. 384.....	10	70	2.78-5.08		
Staples Lodge No. 194.....	10	70	2.78-3.48		
Two Harbors Lodge No. 339.....	10	70	2.78		
Thief River Falls Lodge No. 436.....	10	70	2.78-3.24		
Virginia Lodge No. 746.....	10	70	2.85-3.60		
Waseca Lodge No. 139.....	10	70	2.78-4.18		
Willmar Lodge No. 640.....	10	70	2.50-3.50		
Winona Lodge No. 510.....	10	70	3.00		
All trainmen are paid by 10 hour day or 100 miles. Low figure generally represents brakemen's wage and high figure conductor's wage for 100 miles.					
Typographical Union, International—					
Minneapolis Union No. 42.....	6-8	36-48	4.12	4.12	
St. Paul Union No. 30.....	8	48	3.50-4.36	3.50-4.36	
St. Paul Union No. 13 (German).....	8	48			
Duluth Union No. 136.....	8	48	3.25		
Brainerd Union No. 593.....	8	48	3.40-4.00	3.40-4.00	
Stillwater Union No. 432.....	8	48	2.50	2.50	
St. Cloud Union No. 630.....	8	48	3.00		
Virginia Union No. 727.....	8	48	2.66		
Winona Union No. 246.....	8	48	3.25		
Scale varies in newspaper and job offices. Average wage reported.					
Teamsters, Chauffeurs, Stablemen and Helpers, International Brotherhood of—					
Minneapolis Union No. 21 (team owners).....	8-9	54-60	*5.00		
Minneapolis Union No. 471 (milk wagon drivers).....	10	70	2.50		
Minneapolis Union No. 221 (ice wagon drivers).....	12	72	3.16		
*This wage is for man and team.					
Increase of 50 cents per day. Increase of \$5.00 per month. Increase of \$5.00 per month.					

TABLE 3—UNION SCHEDULE OF WAGES AND HOURS IN FORCE AUGUST 1, 1914—Continued

Name and Location of Union	Working Hours		Daily Wages Union Scale		Increase or Decrease In Wages or Working Hours Since 1912
	Daily	Weekly	Male Dollars	Female Dollars	
Teamsters, Chauffers, Stablemen and Helpers, Internat'l Brotherhood of—Continued—					
St. Paul Union No. 120 (team owners)	8-10	48-60	\$6.00		Increase of 20 per cent.
St. Paul Union No. 245 (team drivers)	10	60	2.75		Increase of 40 cents per day.
St. Paul Union No. 756 (ice wagon drivers)	12	72	3.07		Increase of \$5.00 per month.
St. Paul Union No. 476 (milk wagon drivers)	10	70	2.25		
Duluth Union No. 411	10	60	2.50		
Faribault Union No. 139 (team owners)	9	54	\$4.50		Increase of 10 cents per hour. Decrease of 1 hour per day.
St. Cloud Union No. 586	9	54	\$5.00		Increase of 50 cents per day.
*This wage is for man and team.					
Tailors Industrial Union, International—					
Minneapolis Union No. 89	9-10	54-60	\$2.35	1.50	Increase of 7 per cent.
St. Paul Union No. 88	10	60	3.00		
St. Paul Union No. 388	10	60	2.00	1.00	
Duluth Union No. 97	10	60	3.00		
Hibbing Union No. 315	10	60	2.75	2.75	
Virginia Union No. 306	10	60	3.00		
*Mostly piece work; average earnings reported.					
Tugmen's Protective Association, Licensed—					
Duluth Union No. 1	13	91	\$4.00-4.50		Decrease of 25 per cent in Working hours.
*Captains \$4.50, engineers \$4.00.					
Tile Layers Union, International—					
Twin City Union No. 19	8	44	4.00		Decrease of 4 hours per week.
Duluth Union No. 83	8	48	4.00		
Upholsterers' International Union—					
Twin City Union No. 117 (retail)	8½	51	3.50		Decrease of ½ hour per day.
Minneapolis Union No. 23	9	53	3.00		Increase of 5 per cent.
Wood Carvers Association of North America—					
Minneapolis Branch	8	48	4.00		Increase of 5 cents per hour.
*One Union, name withheld	8-12	50-84	2.50		

*One union requested that its report be treated confidentially.

TABLE No. 4—BENEFITS PAID TO MEMBERS OF THE VARIOUS LABOR ORGANIZATIONS

(Note: Benefits paid by national organization are paid to all members. Additional benefits are sometimes paid by local organizations.)

Union	Sick Benefit		Accident Benefit		Strike Benefit		Out of Work Benefit		Funeral Benefits	Other Benefits
	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks		
Blacksmiths and Helpers, Int'l Bro. of					\$7.00	Indef.	Dues	52		Dues remitted when unemployed
Brewery Workmen, Int'l Union of United									\$50.00	Dues remitted in case of sickness if lasting more than one month
Minneapolis Union No. 103 (local benefits)	\$3.00	13							25.00	
Minneapolis Union No. 269 (local benefits)										
St. Paul Beer Wagon Drivers' Union No. 214 (local benefits)	5.00	4							25.00	
St. Paul Beer Bottlers' Union No. 343 (local bfts)	5.00	12							23.00	
Bakery and Confection Workers' Int'l Union	7.00	16			6.00	Indef.			50-350	Death of wife \$25 to \$75
Boilermakers and Helpers, Int'l Bro. of	5.00	13	\$5.00	13	5.00-7.00	Indef.			50-250	Disability benefit \$500 to \$800
Winona Union No. 201									100	Dues paid after 30 days unemployment
Bill Posters and Billers, Int'l Alliance of					5.00	Indef.				
Broom and Whisk Makers' Union, Int'l									75-500	
Barbers' Int'l Union, Journeymen	5.00	16	5.00	16	7.00-10	Indef.			50-300	Pension of \$5.00 per week to members over 60 yrs. of age who have been in good standing 20 yrs.
Bricklayers', Masons' and Plasterers' Int'l Union										Additional funeral benefit of \$200.00 of wife \$100.
Minneapolis Union No. 2 (local benefits)			*10.00	5						Additional funeral benefit of \$200.
*Pays \$10 for first 5 wks.; \$7 for next 7 wks.			7.00	7						Additional funeral benefit, \$50. Death of wife \$25
St. Paul Union, Bricklayers' No. 1 (local ben.)	5.00	10								
Crookston Union No. 23										
Stillwater Union No. 9	3.00	12	3.00	12	5.00-7.00	Indef.			75	
Bookbinders, Int'l Brotherhood of	3.00	7			5.00	Indef.			100	
Bridge and Structural Iron Workers, Int'l Ass'n			5.00	6					50-100	
Boot and Shoe Workers Int'l Union	5.00	13			Indef.	Indef.				Optional insurance \$250 to \$1,000
Carmen, Brotherhood of Railway Conductors, Order of Railway					Mo. 50	Indef.				Death & disability ins. \$1,000 to \$3,000
Duluth Division No. 336 (local benefits)									35	Relief fund for members unable to work with a max. of \$45 per month
Cigarmakers' International Union	5.00	13	5.00	13	*5.00	16	3.00	18	50-550	Maintain a home for aged and disabled members at Hyland Park, Ill.
*Pays \$5 for first 16 wks., then \$3 until strike is terminated.					3.00	Indef.				Total disability same as death. Traveling loans, \$20. Death of wife or dependent widowed mother, \$40

TABLE No. 4—BENEFITS PAID TO MEMBERS OF THE VARIOUS LABOR ORGANIZATIONS—Continued

(Note: Benefits paid by national organization are paid to all members. Additional benefits are sometimes paid by local organization.)

Union	Sick Benefit		Accident Benefit		Strike Benefit		Out of Work Benefit		Funeral Benefits	Other Benefits
	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks		
Clerks' Int'l Protective Association, Retail Carpenters and Joiners, United Bro. of	5.00	12							25-200	Death of wife \$25 to \$50; disability, \$100 to \$400
Mpls. Carpenters' Union No. 7 (local benefits)	5.00	13	5.00	13						
Mpls. Carpenters' Union No. 1661 (local ben.)	3.00	13	3.00	13						
Mpls. Cabinet Makers' Union No. 1568 (local benefits)	5.00	13								
St. Paul Carpenters' Union No. 87 (local ben.)	5.00	13	5.00	13						
Brainerd Carpenters' Union No. 951 (local ben.)	5.00	13	5.00	13						
Owatonna Union No. 1909 (local benefits)	3.00	13	3.00	13						
Rochester Union No. 980	5.00	13	5.00	13						
Stillwater Union No. 957	4.00	13	3.00	10						
St. Cloud Union No. 930	3.00	10	3.00	10						
Winona Union No. 387										
Coopers' International Union										
Cement Workers, American Brotherhood of Engineers, Int'l Union of Steam	3.00	13								
Minneapolis Eng. Union No. 528 (local benefits)										
Mpls. Holst. Eng. Union No. 86 (local benefits)										
St. Paul Holst. Eng. Union No. 84 (local ben.)										
Electrical Workers, Int'l Brotherhood of										
St. Paul Union No. 110 (local benefits)	5.00	6								
St. Paul Union No. 23 (local benefits)	5.00	10								
Engineers, Brotherhood of Locomotive										
St. Paul Div. No. 474 (local benefits)										
St. Paul Div. No. 150 (local benefits)										
Duluth Div. No. 395 (local benefits)										
Bemidji Div. No. 802 (local benefits)										
Proctor Div. No. 559 (local benefits)										
Electrotypers and Stereotypers' Union, Int'l										
Mpls. Stereotypers' Union No. 16 (local ben.)										
St. Paul Stereotypers' Union No. 103 (local ben.)										
Death and disability ins. \$1,500-\$3,000										
Optional acc. ins. paying \$5-\$20 wkly										
Optional old age and disability pension, \$25 to \$65 monthly.										
St. Paul Div. No. 474 (local benefits)									75	
St. Paul Div. No. 150 (local benefits)									100	
Duluth Div. No. 395 (local benefits)									100	
Bemidji Div. No. 802 (local benefits)									100	
Proctor Div. No. 559 (local benefits)									100	
Electrotypers and Stereotypers' Union, Int'l									50	
Mpls. Stereotypers' Union No. 16 (local ben.)									50	
St. Paul Stereotypers' Union No. 103 (local ben.)									50	

TABLE No. 4—BENEFITS PAID TO MEMBERS OF THE VARIOUS LABOR ORGANIZATIONS—Continued

(Note: Benefits paid by national organization are paid to all members. Additional benefits are sometimes paid by local organization.)

Union	Sick Benefit		Accident Benefit		Strike Benefit		Out of Work Benefit		Funeral Benefits	Other Benefits
	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks		
Furriers' Union (St. Paul)	5.00	13			7.00	Indef			50	
Firemen and Enginemen, Bro. of Locomotive			15.00	26					*175	Death & disability ins. \$500 to \$3,000
Minneapolis Lodge No. 510 (local benefits)	7.00	27	7.00	27						
Minneapolis Lodge No. 704 (local benefits)	10.00	10	15.00	40						
Thief River Falls Lodge No. 103 (local benefits)					7.00	52				
*Paid only to non-beneficiary or honorary members.					7.50	Indef				
Glass Workers' Union, American Flint									50-200	20-yr. members over 62 yrs. of age pension \$10 per mo. for 6 mos. of each yr. Loss of sight benefit \$500
Granite Cutters' International Association										
Twin City Branch										
Garment Workers of America, United	3.00	8								
Hotel and Restaurant Employees' Int'l Alliance and Bartenders' League of America	7.00	10								
Mpls. Bartenders' Union No. 152 (local ben.)									50	
Mpls. Cooks' Union No. 458 (local benefits)									50	
St. Paul Bartenders' Union No. 287 (local ben.)									50	Free doctor to all members & families
St. Paul Cooks' Union No. 408 (local benefits)									50	
Duluth Bartenders' Union No. 574 (local ben.)									50	Free doctor to all members & families
East Grand Forks Bartenders' Union No. 598 (local benefits)									50	
Moorhead Bartenders' Union No. 365 (local ben.)									50	
St. Cloud Bartenders' Union No. 813 (local ben.)									50	
Horseshoers' Union, International Journeymen									25	
Minneapolis Union No. 27 (local benefits)	5.00	12			6.00	Indef			100	
St. Paul Union No. 28 (local benefits)	5.00	5							50	
Lithographers' Int'l Protective and Beneficial Ass'n.	5.00	8			9.00	Indef			50-500	
Leathers' Int'l Union, Wood, Wire and Metal									50-100	
Leather Workers on Horse Goods, United Bro. of Longshoremen's Association, International	5.00	10			5.00-7.00	15			40-100	
Meat Cutters and Butcher Workmen, Amalgamat	5.00	13			Indef	Indef			150	
Duluth Union No. 12									50-100	
Machinists, International Association of					6.00-8.00	Indef			50	
Minneapolis Lodge No. 477 (local benefits)	4.00	12							50-200	
St. Paul Lodge No. 459 (local benefits)	4.00	12								
St. Paul Lodge No. 112 (local benefits)	4.00	13								
Winona Lodge No. 133 (local benefits)	4.00	13								

TABLE No. 4.—BENEFITS PAID TO MEMBERS OF THE VARIOUS LABOR ORGANIZATIONS—Continued

(Note: Benefits paid by national organization are paid to all members. Additional benefits are sometimes paid by local organization.)

Union	Sick Benefit		Accident Benefit		Strike Benefit		Out of Work Benefit		Funeral Benefits	Other Benefits
	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks		
Maintenance of Way Employees, Int'l Bro. of Musicians, American Federation of—										
Minneapolis Union No. 73 (local benefits)									100	
St. Paul Union No. 30, (local benefits)	5.00	12							75	
Duluth Union No. 18 (local benefits)									100	
Stillwater Union No. 363 (local benefits)	5.40	13			7.40	Indef	Dues pd.	13	100-250	
Moulders' Union, International					6.00	13			200	
Marble Workers' Association, International										
Plasterers' International Association, Operative										
Minneapolis Union No. 65 (local benefits)										Optional insurance \$250 to \$1,000
St. Paul Union No. 20 (local benefits)										
Duluth Union No. 53 (local benefits)	5.00	13								
Rochester Union No. 472 (local benefits)	5.00	6			5.00	Indef				Each member is assessed \$1.50 at the death of a member as a funeral ben.
Plumbers, Gas Fitters, Steam Fitters and Steam fitters' Helpers, United Association of	5.00	13			5.00	Indef				Each member is assessed \$1.00 at the death of a member as a funeral ben.
Pressmen and Press Assistants' Union, Int'l Ptg.					5.00-7.00	Indef			100	Death of wife \$40
Mpls. Pressmen's Union No. 20 (local benefits)	7.00	Indef							100	
Mpls. Press Asst. Union No. 6 (local benefits)	6.00	12								
St. Paul Press Asst. Union No. 55 (local ben.)	4.00	13								
Plasterers' Tenders' Mpls. Union (local benefits)										
Painters, Decorators and Paperhangers, Bro. of					Indef	Indef				Each member is assessed \$1.00 at the death of a member.
Twin City Sign Writers' Union No. 880 (local benefits)									50-300	Death of wife \$50
Minneapolis Union No. 186 (local benefits)	5.00	13			9.00	Indef				
St. Paul Union No. 61 (local benefits)	4.00	10								
Duluth Union No. 106 (local benefits)	4.00	9			7.00-10	Indef			100	
Photo Engravers' Union, International									100	
Twin City Union No. 6 (local benefits)	4.00	13			7.00	Indef			50-400	Tool benefits against loss by fire and flood, \$25 to \$150
Pattern Makers' League of North America										
Paper Makers, International Brotherhood of					5.00-7.00	Indef	Dues		50-300	
Paving Cutters' Union, National					6.00	Indef	Dues		125	
Quarrymen's International Union					6.00	Indef			50-125	

TABLE No. 4—BENEFITS PAID TO MEMBERS OF THE VARIOUS LABOR ORGANIZATIONS—Continued

(Note: Benefits paid by national organization are paid to all members. Additional benefits are sometimes paid by local organization.)

Union	Sick Benefit		Accident Benefit		Strike Benefit		Out of Work Benefit		Funeral Benefits	Other Benefits
	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks		
Stage Employees, Int'l Alliance of Theatrical										
Minneapolis Union No. 13 (local benefits)	5.00	12							50	Assessment of \$1.00 per member in case of death
St. Paul Union No. 20 (local benefits)	4.00	Indef			Weekly wage	Indef			100	
Sheet Metal Workers' Int'l Alliance, Amalgam'd										
Duluth Union No. 32 (local benefits)	5.00	12			5.00	Indef				
Brainerd Union No. 241 (local benefits)										
Switchmen's Union of North America										
Minneapolis Union No. 30 (local benefits)			3.00	10						Death & disability ins. \$375 to \$1,500
Stone Cutters' Association, Journeymen									125	
St. Paul Branch (local benefits)					5.00	Indef				
Duluth Branch (local benefits)					6.00	Indef				
Kasota Branch (local benefits)					6.00	Indef				
Mankato Branch (local benefits)					6.00	Indef				
Shoe Workers, United, of America	5.00	13			5.00	Indef			100	Death & disability ins. \$500 to \$1,500
Trainmen, Brotherhood of Railway					Mo. 40	Indef				
Minneapolis Lodge No. 525 (local benefits)										
St. Paul Lodge No. 804 (local benefits)										
Austin Lodge No. 283 (local benefits)										
Crookston Lodge No. 683 (local benefits)										
Montevideo Lodge No. 764 (local benefits)	5.00	Indef								
Proctor Lodge No. 529 (local benefits)										
St. James Lodge No. 384 (local benefits)										
Wasceca Lodge No. 139 (local benefits)										
Winona Lodge No. 510 (local benefits)					5.00-7.00	Indef			75-400	Old age pension \$5.00 per week. Maintains home for aged and disabled at Colorado Springs.
Typographical Union, International										
Minneapolis Union No. 42 (local benefits)	10.00	Indef							200	
St. Paul Union No. 30 (local benefits)	5.00	8			2.00-3.00	Indef			75	
St. Paul Union No. 13 (local benefits)	5.00	Indef								
Duluth Union No. 136 (local benefits)	7.00	7								
Brainerd Union No. 593 (local benefits)									100	
Stillwater Union No. 432 (local benefits)	5.00	8								

TABLE No. 4—BENEFITS PAID TO MEMBERS OF THE VARIOUS LABOR ORGANIZATIONS—Continued
(Note: Benefits paid by national organization are paid to all members. Additional benefits are sometimes paid by local organization)

Union	Sick Benefit		Accident Benefit		Strike Benefit		Out of Work Benefit		Funeral Benefits	Other Benefits
	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks	Amt. per week	How many weeks		
Teamsters, Chauffeurs, Stablemen and Helpers, International Brotherhood of										
Mpls. Milk Wagon Drivers' Union No. 471 (local benefits)	5.00	13			5.00	Indef				
Mpls. Ice Wagon Drivers' Union No. 221 (local benefits)	5.00	13							100	
St. Paul Team Drivers' Union No. 245 (local benefits)	5.00	5								
St. Paul Ice Wagon Drivers' Union No. 756 (local benefits)	5.00	8								
Duluth Union No. 411 (local benefits)	4.00	13								
Tailors' Industrial Union, Journeymen	5.00	10			5.00	Indef			25-100	
Minneapolis Union No. 84 (local benefits)	4.00	8			5.00	6 mos				
Upshotters' International Union	5.00	13			7.00	Indef			100	
Minneapolis Union No. 23 (local benefits)					8.00	Indef			150	
Wood Carvers Association, International										After membership of 6 mos. entitled to insurance on tools of \$30.00

When national organization only is reported it indicates that all local unions derive same benefits from parent body. Additional local benefits are reported separately. Low figure for single men; high figure for married men.

